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Centralized vs. Localized Administration of Public Education*

DAVID SNEDDEN, PH.D., ADJUNCT PROFESSOR OF EDUCATIONAL ADMINISTRATION, TEACHERS' COLLEGE, COLUMBIA UNIVERSITY, NEW YORK

LOCALIZED and democratic administration of public education is characterized by the following qualities: the constitution of the state authorizes and establishes public instruction only in most general terms; state legislation regarding it is not specific, and is largely permissive; schools and school systems are administered and supervised mainly by laymen holding office for short periods and quite responsive to public opinion; the areas of administration for important functions are small, such as districts, or wards of cities; town meetings or public elections are competent to decide a variety of administrative questions, such as appropriating money, selecting text-books, locating school houses and deciding on new types of education; and state officials have mainly advisory powers, or at most certain powers of veto.

Centralized administration, on the other hand, exhibits the following characteristics: the state constitution fixes many ad-

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ministrative details, such as types of schools that may be permitted, maximum tax levies that may be imposed, methods to be employed in distributing funds, and qualifications and compensations for certain offices; the state legislature by statute and by its control of municipal government regulates a variety of the details of administration, thus reducing the possibilities of initiative and variation in the local community; administrative functions are transferred from the smaller to the larger areas, as when certification of teachers, selection of text-books, formation of courses of study, inspection of schools, conduct of institutes and other administrative functions become the duties of state officials, or when the district or the part of the city, has to yield its authority to the county or to the consolidated city; popular meetings and elections diminish in number and effectiveness, their powers being conveyed to representative boards; lay boards decrease in size, their members are appointed rather than elected, and the members' terms of office are prolonged, thus removing them from the immediate control of the popular will; under the lay boards appear experts whose functions increase at the expense of the board, whose tenure becomes relatively secure, and who are not necessarily representative of, or informed with regard to, the local opinion and will.

The history of American education shows that centralization in one form or another has been a progressive tendency for more than half a century in nearly all the states of the union. This movement is parallel to a similar evolution which has taken place in almost all departments of social economy, such as business, government, charity and philanthropy, research, etc. At bottom it is a product of two factors: the demand for efficiency and economy on the one hand; and the growth of intelligence, means of communication, and organizing ability on the other. If, under organizing ability, we include the capacity of a democracy to select wise leaders and to maintain an effective oversight on the actions of these, then it may be said that the degree to which centralization at any time may proceed must be the resultant of the two factors mentioned above.

Centralized administration of public education may have, at any given period, some good and some bad effects. Other

things remaining equal, it promotes efficiency in the following directions:

(*a*) It develops uniformity over large areas, with the accompanying possibilities of economy. Types of educational effort may be co-ordinated, official bodies reduced, conflicting jurisdiction adjusted, and the material means of instruction provided on a large scale.

(*b*) It permits the collective wisdom of the larger area to control the actions of the smaller, to maintain at least a minimum level of cultural uniformity, and thus to prevent local developments hostile to the best interests of the state. The state may determine the minimum amount of money to be given locally to public education; it may aid weaker localites; it may inspect the results of local educational effort; and it may enforce the establishment of new types of education; in a similar way, the county as opposed to the smaller areas, or the city, as opposed to its divisions, may enforce conditions of efficiency better than the more minute divisions.

(*c*) It makes possible the substitution of carefully-planned and co-ordinated policies for the vagaries and immature schemes of purely local administration with its popular control and inexpert management. A large city, or county, or other area, or the state, in inaugurating new policies may have specialists planning the work even for years before the first step is taken. Information from various sources may be collected, and experiments conducted, before the promulgation of a new policy.

(*d*) Finally, centralized administration makes possible the introduction and development of the expert. Undoubtedly this is its most important contribution to efficiency. In proportion as the primitive art of educational administration becomes complex and is transformed into a field of applied science, the presence of specially qualified experts becomes indispensable. But the development of the expert seems to be possible only in divisions large either in area or population and under conditions of control which are not purely democratic as democracy was understood in the primitive life of America. Among the types of expert service already past the experimental stage of development in American education may be mentioned the architect to plan and supervise the erection of school buildings;

the man who is at once physician and educator, to direct the various aspects of physical education, such as medical inspection, physical training, and to supervise the hygienic conditions of instruction; the business manager to attend to the financial affairs of the school system; the statistician, who directs the making of school records and reports, and who is able to utilize these so as to derive conclusions suggestive of new administrative procedures; the specialized supervisor of instruction whether of some division of the educational system, as kindergartens, rural schools, grammar grades so-called, or high school, or of instruction in some type of subject matter, such as music, or manual arts; or, finally, the superintendent, the earliest of the experts to be developed and the man who must yet stand at the head of any system, expressing its most genuine demands and co-ordinating the various aspects of its activities in the interest, first, of the individual child, and, second, in the final welfare of the state. Not only have the most successful attempts at centralization thus far made possible the utilization of these experts; they create in turn new fields of leadership for which we may soon expect able men and women to prepare themselves. American education is rapidly developing the profession of superintendent of schools, an office which has no exact counterpart elsewhere, but which must become indispensable to educational progress. Other types of specialized experts must soon be provided. The development of physical education in the broad sense of that word must give us yet the man who is physician and educator combined; the direction of vocational education will require experts who can devote their lives and a long period of training to this work; and some day we must produce leaders who can strike out plans for moral or social training and superintend their execution. It is in evidence that educational finances, school architecture, the selection of text-books, the education of defectives and delinquents, and the adjustment of children to practical life through employment bureaus will all in turn demand their experts. These are all conditions of true educational efficiency; and their development through and under experts requires an increasing centralized administration of public education.

On the other hand, certain evils tend to follow in the train of

centralized administration of public education. The most conspicuous of these are:

(*a*) Lack of adaptability. Communities vary in their characteristics, needs, and ability to support varying forms of public schools. One portion of a city may differ from another, rural areas may differ from urban areas, and districts populated by foreigners may present special needs. Uniform schemes administered by central authorities fail in flexibility, and become mechanical. Until we know much better than we now do the genuine aims of public education, uniform schemes may work marked harm through failure to meet local needs. This evil is not, of course, an inherent one in centralized administration, since expert direction may eventually produce flexibility, if there is intelligent local demand for it; but it is a usual accompaniment.

(*b*) Akin to this unwelcome result is the waning of popular interest. Localized and popular administration of education has produced in all sections of America a more intense public interest and activity than has any other form of social action. Some forms of political activity may thrive and develop without popular interest; not so public education. The best of school education must blend intimately with home and community interests; the absence or withdrawal of this co-operation chills and mechanises school agencies. Much of the effectiveness of American education has been realized in spite of its imperfect administration, largely owing to the popular devotion to its ideals and processes. In the face of centralizing tendencies it is hard to keep alive local interest; for the most genuine form comes only when the immediate community has enough control of the administrative machinery to make its will felt.

(*c*) Equally serious is the effect of centralization in diminishing possibilities for variation and experiment. President Butler has declared that spontaneity is the characteristic feature of American education. Not only has the public school itself been indigenous in each state, but to a large extent all the special features of public education have had a local and spontaneous development. Within each state communities have vied with each other, have embarked upon experiments, have developed and fixed variations in new directions. Speaking in

biological terms the variability of American education has been enormous, which, considering the conditions, has resulted in much progress. Ultimately society will reach the point where, as now in the case of medicine, it will support conscious experimentation on a large scale in education, but until then, we can hardly afford to surrender the opportunities, however crude and wasteful, which exist in a decentralized form of educational administration, especially when the spirit of experimentation and competition still prevails. Lack of variability as in the case of adaptability is not an inherent evil of centralized administration, but a probable tendency in the pre-scientific stages in which public education still exists.

(*d*) Finally, we have to note that administrative centralization tends to entail the evils of bureaucracy, and not less when it is in charge of experts with more or less permanent tenure. These experts must inevitably tend towards group solidarity, having kindred sentiments and interests, both in pursuit of social satisfaction and while endeavouring to accomplish mutual improvement. The relations of the experts towards the public tend to become official and formal. In time, a bureaucracy may be formed, with distinctively anti-social tendencies.

We have now described in somewhat extreme contrast the desirable and undesirable effects of the centralized administration towards which our American public school systems are, with occasional exceptions, steadily tending. There remain for consideration the means by which some adjustments between local and popular administration on the one hand, and centralized and expert administration on the other, can be effected so as to produce the maximum of social good. Many such adjustments have already been made in an empiric fashion, and many more are theoretically feasible. The evolution of English government, as Lowell indicates at numerous points,* has produced a variety of means of combining local and central control so as to minimise the evil effects of each. The Bill of 1902, among other recent administrative measures in public education, brings into action a number of devices to produce the same effect. But in most of the American states it can hardly be

* Lowell, A. Lawrence. "The Government of England." 2 vols. Macmillan. 1908.

said that policies of adjustment have reached the plane of political consciousness, notwithstanding the fact that in most state legislatures there is at each session an almost constant struggle between the opponents and proponents of measures making in turn for centralization or decentralization. Too often the contest is for the preservation of some purely local function or for its complete centralization; not enough do legislators seek constructive measures in the middle ground. But it is possible, through an examination of the results obtained in some states, and on the basis of some European experience, to suggest means of adjustment. Among these are the following:

I. The complete exercise of a given function may be divided between two agencies, one of which represents the relatively expert and centralized aspect of administration, the other the more democratic and local. According to conditions the initiative will lie with the one or the other of these agencies. The following are the principal situations involved in educational administration:

(*a*) The division of power between expert and lay officials. This is already found in a state like New York in which a lay board acts through an expert commissioner of education; in those forms of county government found especially in Southern States and in Indiana in which a lay board elects and operates through an expert county superintendent; and especially in cities in which the lay boards have gradually ceased to exercise administrative functions, but hold themselves responsible for general legislation and for final approval or veto of the acts of the expert superintendent. By law in the state of Ohio and by local provision in the cities of many other states, boards of education have, after many years of hesitation, given to the superintendent the supreme function of the expert, which is the nomination of those who are to teach or otherwise work in the schools; in these cases the boards reserve only the right of final veto or approval on the nominations of the superintendent. It is needless here to point out that such a division of power as this serves largely as a corrective to various of the possible evils of centralization discussed above. Giving large powers to the expert, it yet reserves a form of final control to the public and its lay representatives. Such a conscious division of powers is

not yet widely found in practice in American states. The state and county superintendents who should be experts are in too many instances chosen by popular election for definite terms and are responsible only to the public, all of which conditions prelude the development of the real expert. In some cases state and county boards are really composed of experts, but are only partially allocated to the performance of expert functions. American cities show this division of administrative powers at its best.

(*b*) A second form of divided administrative power is found in that which is practicable between the more central and the more local agencies whether these be expert or lay. Illustrations of this are found where the legislature fixes by statute maxima and minima of taxation, leaving to local communities considerable local option; or under a minimum salary law which allows the local area to exercise its own option in exceeding the maximum; or where state or other central approval is required for plans of buildings locally drawn; or in the existence of state courses of study which may or may not be locally adopted; but especially in the widespread tendency of state prescription of general features of courses with opportunity for fixing the details locally. A striking development of this form of offset to centralization is found in England in which the National Board of Education suggests to local authorities a large number of alternatives in many aspects of local administration, leaving to local authorities responsibility for proposing definite plans and specifications. These in turn must be approved by the higher authorities before they can become effective. The possibilities of a further development of this division of administrative power in American states is great, especially where centralized administration tends to become too uniform and incapable of allowing for healthful variation. There is no inherent reason why, for example, the adoption of a state system of text-books should mean absolute state uniformity. The state might adopt two or more of the best texts and allow for local choice among these; or it might adopt a single list for all except those communities which could present good reasons for adopting some other series, which reasons could be approved or negatived by the state authorities. There is inherently no good

reason why a course of study should be uniform throughout a large city, except as to its most general features. Probably much greater opportunity for progress and local adaptation would be found if large schools were each able, within the limits of a very general and minimum course, to make proposals as to details, which should receive the refusal or endorsement of the central city authorities. It is not impossible that as the demands for a richer corporate life within the school increase, the head of the school will be given much greater authority than he is now able to exercise in the choice of his assistants. "But the evidence before the Committee points to the conclusion that, in the selection of their assistants, the head teachers of our public elementary schools should as a rule be allowed to have a more effective voice than is now granted to them," says Dr. Sadler in writing the introduction to the recent "International Inquiry on Moral Instruction and Training in the Schools." The state might very well impose on the local community the obligation to support certain amounts or kinds of vocational education; but leave to the locality option as to the details, subject to inspection. On the other hand, it is probable that in many states functions now locally exercised exclusively might well be shared with state or higher authorities, as is done to some extent in the certification of teachers. For example, local budgets, salary schedules, and pension schemes might all be made to require approval of higher authorities before final adoption. It can safely be said that centralized administration through division of responsibility between central and local authorities has had little more than preliminary development in American education. In the future developments of professional training of teachers after entering on service, in the development of professional oversight of the physical aspects of education, and in provision of moral or civic training, it is entirely possible that the state or other large area must assume increasing responsibility, but it is evident that the social effectiveness of this will depend upon a proper division of responsibility between local and central authorities.

II. Another system of correctives to centralization is that to be found in the existence of bodies which, in the exercise of more or less localized functions, reflect public opinion, inform

official and centralized agencies, and in turn through the exercise of these powers are themselves enlightened and have their appreciation of the general system of administration enhanced. For practical purposes we may distinguish two types of effort in this direction: that which involves laymen whose attitude towards the schools is that mainly of the public supporting the schools and interested mainly in the output; and the relatively minor officials in the system itself who are in most intimate touch with the practical problems.

(*a*) State Commissions, Citizens' Unions, Parents' Associations, Public Education Authorities of one kind and another have been organized at times to study public education, to contribute to it moral support, and by criticism, destructive and constructive, to improve it. Vastly more extensive is the informal co-operation and criticism which emanates from commercial and religious organizations, from political parties, and from groups of people expressing more or less coherent public opinion. In the rudimentary stages of the evolution of educational administration the last agencies described are quite ample to produce needed intimacy between the public and the schools; but as administration becomes more complex and highly and even sensitively organized these crude agencies are not only often unserviceable, but not infrequently positively harmful. Hence the need (since the social necessity which brings forth these forms of expression continues and grows) that organized channels for the accomplishment of these purposes be fostered. Not only should the organization of large and small bodies of laymen to study and criticize the public schools be encouraged, but regular means of communication for them should be provided, and when they reach the point of constructive recommendation their findings should invariably receive courteous treatment. This will not always be easy, for in proportion as administration becomes complex, will it prove difficult to cause the layman to be well informed; and the necessary effort to accomplish this can only be justified on the ground that in the long run the resulting co-operation is indispensable to an educational administration that combines efficiency and sensitiveness to public opinion.

(*b*) In any centralized system there are large numbers of

head masters, teachers and other minor officials who are in their degree experts and who are closely in touch with practical problems. Like the lay public, these also have their special and local interests in education, and not infrequently they have the same inability to comprehend the larger aspects of the problems involved. But their sympathetic understanding, their disposition to co-operate, and especially their knowledge founded on practical acquaintance with problems is essential to the wider administration. One of the early effects of centralization, however, is largely to silence this body. Frequently a measure of suppression is thought necessary from the standpoint of the morale or discipline of the force. Not infrequently autocratic ideas borrowed from militaristic regimes provide easy assent to measures taken to render the "force" orderly. And here again it must be confessed there is often great provocation. The theorizer, the sciolist, the chronic critic, are found too frequently in the body of teachers and other minor officials. Much freedom allowed to these does tend to demoralization of the force, temporarily at least. But it is evident that a wise system of administration should prove abundantly able to draw on the vast resources of experience, available in the ranks, and especially to stimulate the self activity which results from the exercise of legitimate freedom, without having chaos and disorder result. That form of administration, for example, whether of state, county, or city, which utilizes to a large extent committees and associations either already formed or created for this purpose, as means of investigation, criticism, suggestion, and constructive action, is surely most effective in the long run. Examples of this kind of co-operation are readily available, even though in many school systems no regular policy has yet been developed of providing it for a variety of situations. State, divisional, county, and city associations of teachers make recommendations as to legislation and occasionally as to administration; in the formulation of courses of study committees of teachers or principals are formed to confer and make recommendations; in the selection of text-books, state, or more local boards have often constituted committees to examine books and make tentative recommendations. In a few cases committees of teachers have been asked to assist examining

boards in preparing questions for teachers' and pupils' examinations. Recent tendencies of colleges to enlist the co-operation of secondary school teachers in preparing tests for admission to college is another instance of the same tendency.

It will, of course, be recognized that the communication and co-operation described above exist constantly in an unorganized form in most school systems; but the fact here to be emphasized is that in a complex system of administration it is no longer sufficient to depend upon casual and unorganized efforts in this direction. So important is the interaction of the various forces of administration that as systems become unwieldly and relationships less intimate and personal, in that proportion is it necessary to organize and set in motion machinery which will systematically effect the same result. This principle has already obtained recognition in the conduct of large business affairs; owing to the sensitive and personal character of public education, the need for such mutual interaction here is much greater.

In view, then, of the rapid and to a large extent necessary centralization which is everywhere taking place in educational administration, it would seem that educators should as far as practicable recognize and give effect to principles like the following:

1. The evolution of administration should be along such lines as to secure the selection and retention of a genuine expert at the head of each important administrative function. This principle is widely observed now, especially in municipal school administration, but the glaring exceptions are the popularly elected and therefore largely inexpert county and state superintendents of public instruction in the majority of the states.

2. Back of the expert and in ultimate but guarded authority over him should be a committee or board representing the public and as immediately responsible to the public as possible. Such boards should be restricted as regards administrative initiative and recommendation, but their general powers of veto and approval should be large. In many cases state boards of education are at present not of this character; and the majority of city and other school boards do not yet concede to the expert the powers of initiation and recommendation here implied.

3. Administrative policy should seek a consistent division of functions between local and central administrative agencies to the end that flexibility, variation, and mutual understanding may result. The examples of this at present are few and irregular.

4. Lay agencies and commissions temporary or permanent should be developed widely to represent local sentiment, to study administration, and finally to express public opinion. These now exist to some extent, but they are sporadic in character and receive little systematic encouragement from administrative authorities.

5. Similarly, bodies small and large should be freely created or encouraged among the rank and file of the lower officials of the force of experts for the purpose of being charged with a measure of responsibility for reflection of local expert sentiment, for study of problems, and for final recommendations. These bodies now occasionally exist, but no systematic policy has been adopted with reference to their organization and functioning.

The Educational Use of Dramatic Instinct in Grammar Grade Reading*

MARGARET LOVE PORTER, INSTRUCTOR IN READING IN THE WINCHESTER SCHOOL, PITTSBURG, PENNSYLVANIA

THE importance of Froebel's teaching of the educative value of play has been generally recognized, but why has his great idea been utilized only in kindergarten work, and no employment, or if any very little, made of this great principle in higher primary and grammar grade work? Groos declares that in man there exists a great number of instincts that are not yet developed at birth. An incomplete being, he must have education of his capacities, and this is obtained through play, which is the exercise of the natural tendencies of human activities. In man and the higher animals play is a preparation,—a prelude to the active functions of life.

In the grade work the best place for the exercise and development of this play instinct is in the reading class. We are gradually getting away from the old public school idea of reading as a singsong articulation of meaningless words. "Reading," Webster says, "is an interpretation." Your ordinary fifth-grade pupil,—how well does he interpret for you what he reads?

Now, I believe that whatever the child reads, each reading lesson should have for its aim " the development of the child's humanities, the vitalizing of speech, the improvement of English, the enlarging of the vocabulary, and the flexing of the body." And in order to do this, I would supplement the Reader and The Supplementary Reader by what, in Educational Theatre parlance, is known as "vitalized text." Use a

* I should like to acknowledge my very great indebtedness to Emma Sheridan Fry, Dramatic Director of the late Educational Theatre, New York City.

situation that is near to the child's own experience. For instance:—

> " Tattle-tale! Guess you thought you'd get me a whippin'!"
> " Oh, Johnnie, I didn't tell!"
> " How'd she find out then? You did! Tattle-tale!"
> " I'm not— I didn't—" (boo hoo!)

I put this text on the board, and then we began to "analyze" it. "Who are they?" Well, some one soon discovered "Johnnie." "Who shall the other be?" They noticed that "she" cried, so they decided it must be a girl—his sister. "Where are they?" They are rather likely to say, in the schoolroom; and this is a good point in your test, as there is a schoolroom at hand and the verity of the scene is thus increased to them. "How old are they?" "What has happened?" The class by now is very much interested and is ready with a lot of plots. Choose the one that seems to interest the greater number. Develop relationship between the two characters—the contrast of the angry boy and the sweet, gentle girl. Get them interested in the two children as they are developed by the handling of the bare text—no reading yet, just talking about it, just vitalizing the imagined characters behind the text. "Why? why? why?" until the children are real to the class, and then, "Let's play it." "Who would like to be Johnnie?" Instantly the hands go up. Choose the eager ones. Their playing will add to the illusion and help establish belief in the reality of Johnnie and his sister, and also help the timid ones to escape from themselves. But be careful not to allow the children to attempt to play the text before it is fully vitalized. The class must fully believe in the reality of the imagined character before play begins, or the question, "Who will be Johnnie?" will throw them back into "a shell of agonized self-consciousness." Don't be too particular about the words used. Let the class realize from the beginning that any words that express the idea and the impulse will do, and thus you begin to lay the foundation stones in the building up of words as mere symbols.

After several casts have played, class criticism begins. "I don't think he did it very well!" "Why not?" "Well he didn't sound mad." "No, and he didn't look mad." "Well how would you do it?" etc.

Now a word about Johnnie's English. "Why does he say, 'whippin'?" or "What ought he to say?" "What does he mean by, 'Thought you'd get me a whippin'." Interest should now be at a high pitch, and they should all try to tell you what is meant. In this way there is developed a freer and more responsive vocabulary.

In the beginning, I spent a few weeks on all kinds of texts—trying to shape text to meet individual needs. I had one little boy of nine, very shy and awkward, but very quick to learn, as I afterwards found out. At first when I called for volunteers to play, his hand never went up. Finally, to my very great joy it did, but I will never forget the look of agony that came over his face when he was about half way up to the bare place that was in turn, "The palace," "The garden," "The schoolroom," etc. He played very badly, of course, since he was self-conscious, and yet the attempt gave him confidence, and I noticed that after that his hand went up much more often, and now he is flexibly responsive to the demand of almost any situation. I planned a special piece of text to meet his special needs—a scene between a little prince and a ragged, scared street boy, and cast him for the prince. He presented a prince with sagging shoulders and ducked head. I let him finish, and then asked the class for discussion of the "prince"—but mind you, never "of the boy." "He doesn't look like a real prince." "What's the matter?" "He doesn't stand right." "Well, how should a prince stand?" etc. In this way I was able to attack the drooping shoulders of the boy, without making it at all a personal matter, or without making him self-conscious. His drooped shoulders became to him a symbol and expression of unprincely spirit.

After a few weeks of text work, the class began to read Alice in Wonderland; and the habit of years being strong upon them, they sang forth "words." "Alice was very tired and sleepy." They read this in the same old monotonous way. "Let's stop a minute, put your book down, Mary, and come here. Now, you are playing Alice—she is sitting down—and she says, 'Oh, I am so tired and stupid.' Now play her." And she did. All the first pages of the narrative were put into dialogue and played out, until now the class is really

able to respond to "Alice." Woe be now to the careless reader who says, "Oh, I am so scared," in the usual way. Immediately there is a chorus, "I don't think she seems scared."

Perhaps it would be well to emphasize a point here—that never should the teacher "show" the class how to read. Conscious imitation has little real value. Lead the child to understand the situation—the motives and impulses that are back of the speech and action, and you can depend upon his giving you work of real value, crude, perhaps, but work that can be shaped and guided into splendid results—speech and action taking form in expression of motives stimulated. Thus speech and the whole body develop in flexibility.

Incidentally, in work of this kind, there is no difficulty in holding the interest and attention of the class.

To Boston in 1910

ETHEL M. ANGIER, DORCHESTER, MASSACHUSETTS

THE nation's ideal convention city Boston unquestionably is, as proved once more by the decision of the National Educational Association to come to New England for a second time since the beginning of the present century. Although San Francisco, arisen from its ruins like the traditional phoenix, wanted the great gathering of educators in 1910 a strong feeling in favor of Boston was developed, with the result that the claims of the California city will wait for another year. The visiting superintendents and teachers had so good a time at the Hub in 1903 that they have never ceased to talk about it. The expressions of appreciation published in newspapers at the time were as heartfelt as ever set forth by representatives of any convention. The good report of Boston's hospitality has been spread abroad, and this year it is expected that at least forty thousand members of the Association will find their way to the cool and beautiful New England coast early in July. The attendance in 1903 was about thirty-five thousand.

A record breaking crowd is looked for because, all apart from the value of attendance at the meetings and conferences of the Association, and the opportunities for making and renewing professional acquaintances, seeing Boston in and for itself is regarded by most Americans as a liberal education. After all the jokes have been perpetuated at the expense of the queer old city, the fact remains that no other place on this side of the Atlantic has as many cherished shrines.

Just what the historic associations of Boston mean to the patriotic American was impressed upon the writer of this article last summer in taking one of the "historic Boston trolley trips" which the enterprising traction company runs from Park Square twice a day. It is an inspiring and inexpensive trip covering a wide territory, with the accompaniment of a mega-

phoned lecture which is worth the journey from half across the continent to hear.

The chance to overhear comments as well as to see sights enlivens the journey. That well-kept trolley car, filled with sundry folk from diverse parts of the land, proves just what Boston means to the rest of the country. It is not the city's present very considerable commercial importance; its great manufactures of shoes and machinery and text-books; its rapidly growing trade with countries of Europe and Asia; not even its magnificent educational institutions and museums which have been springing up and expanding in remarkable profusion these last few years—it is not these things pertaining to Boston, the metropolis, over which men and women who have never seen a seaport before grow enthusiastic. Bunker Hill Monument; the Elm in Cambridge under which General Washington took command of the American Army; the house in which the beloved Longfellow lived; Mt. Auburn Cemetery in which many of the storied great are buried; Old Ironsides, moored at her dock in the Navy Yard and now constituting one of the most fascinating of all museums of American antiquities—these are the objective points of the pilgrimages of the thousands who contribute their nickels to the street car company's coffers during and after each convention.

The feeling that it is a privilege to see these places makes the passengers in the sight-seeing trolley complacent and good-natured. They all enjoy the conductor lecturer's little quips and jokes as the car swings past the spot in Boston's busy street where Mother Goose once lived; the Old South Church, used for a riding school by the British during the occupancy of Boston; the old State House, from the balcony of which announcements of great pith and moment were made to the excited populace of the rebellious little town in the days just preceding the separation; Faneuil Hall, the "cradle of liberty," topped with its gilded grasshopper; Haymarket Square, the Hub of the Hub, from which nine streets radiate; the spire of the Old North Church and the exact location on the Charles River from which Paul Revere started on his ride; thence across to Charlestown and the Navy Yard, filled with Uncle Sam's big fighting ships, and to the foot of a shaded street

looking up which the lecturer calls out: "Bunker Hill Monument on Breed's Hill, 294 steps to the top and no elevator. Twenty-five cents admits you to walk up those steps, and I don't know how many quarters you would give to be at the bottom after you reach the top." A few minutes later the pilgrims experience a patriotic throb as the deep-voiced orator calls attention to the site in Somerville of the house from which Old Glory, fabricated by Betsy Ross, of Philadelphia, was first swung to the breeze. The journey continues over part of the route followed by Paul Revere to Arlington, thence to Harvard Square, Cambridge, past the residences of Longfellow and Lowell and the Washington Elm and back to the city by way of Copley Square and its many world-famous buildings.

Fortunately for the delight and pleasure of the Puritan City's guests at such conventions as that of the N. E. A., the relics of the past are now jealously preserved. There were decades in which historic structures were swept away ruthlessly as indicated in some fine lines by Rev. James Freeman Clark, the autograph of which is among the collections at the Old South Church:—

> "Dear Paddock elms, my friends archaic,
> Horse railroads brought you to your doom.
> The City Fathers, too prosaic,
> Destroyed you in your summer bloom.
> I heard with grief improvement summon
> Old Brattle Church its square to flee.
> I look in vain across the Common;
> The Hancock House no more I see."

The disposition to get rid of old things is not so prevalent in Boston to-day, and the great electric railway company which has succeeded the horse railroads of a generation ago is one of the interests most enthusiastically concerned in preserving the antiquities, the quest of which means many thousands of car fares annually. The tunnel stations under the old Massachusetts State House and the Old South Church, on account of the propping and buttressing that took place when they were constructed, have done much to promote the security of these venerable structures. The services of the Boston Elevated

Company reach practically every spot of historic interest. Street railway employees in Boston are noted for their courtesy in directing strangers.

Next to the historical associations the presence of the sea has most to do with swelling the attendance of conventions that meet in Boston in the warm weather months. The fame of the Massachusetts North Shore and South Shore has gone abroad; the nation's summer capital has been moved to New England. During the big meeting of the educators in 1903 thousands of teachers from the interior who had never before seen the Atlantic enjoyed their first plunge into the surf at Revere Beach or Nantasket. The accessibility of these and other resorts leads to a general exodus on a warm afternoon when the convention is in progress. No other place on the seaboard is affected as Boston by the nearness of the cool depths of the sea. Five miles off shore the water, brought into Massachusetts Bay by the Arctic current, is at a temperature of lower than forty degrees all summer long. Only a few minutes' ride from the heart of the city visitors find at South Boston, at the dividing point between Boston Harbor and Dorchester Bay, the beautiful Marine Park, the first of the great ocean reservations, many of which have since been established in Boston, New York and other Atlantic coast cities. The bathing facilities for men and women, the attractive Head House, where one gets the best of fish dinners, the long recreation pier, alive with people, and the board walk to the government fort at Castle Island make Marine Park an ideal spot for passing a summer evening. The Bay of Naples itself is hardly finer at sunset than Boston Harbor. In 1903 thousands of the teachers took advantage of the attractive and inexpensive sea trips to Plymouth, Provincetown, Gloucester and Portland.

Boston is a city of important museums, to visit which is part of the American's education. Although still lacking an aquarium and a zoological park—needs that are likely to be supplied before long—many other famous artistic and scientific collections are accessible to the visitors.

Of all these institutions perhaps the most celebrated is the Museum of Fine Arts, just relocated in the Fenway district

between Boston and its wealthy suburb Brookline, in a building which is unique among structures of its kind. The galleries and collections of this museum represent an investment of more than six million dollars and, because of the shrewdness with which certain art treasures of a kind that will never again come on the market have been bought, they are really of hardly estimable value. Housed in one of the projecting pavilions around a central court which has been arranged as a Japanese garden is the marvelous department of Oriental Art, pronounced by many experts to be the strongest in existence anywhere,—a rich revelation to the American teacher who delves among its dragons, Buddhas and Kwannons, and its surprising masterpieces of the popular Ukiyo-ye school. In another pavilion are such treasures as the exquisite little Aphrodite head, declared to be the most beautiful Greek original exhumed in recent years, the picturesque Hellenistic head of old Homer, and hundreds of other originals of Greek, Roman and Egyptian art which have international reputation. In tastefully decorated and well-lighted galleries are paintings with many of which most American teachers are familiar through reproductions, including the famous Gilbert Stuart portrait of the Father of His Country; Turner's celebrated Slave Ship; Velazquez's portrait of Prince Don Balthazar and his dwarf; Henri Regnault's Automedon and the Horses of Achilles and many another work. The department of Western Art, with its tapestries, armor, potteries and similar objects is also very important.

Close by the Museum of Fine Arts is Mrs. John L. Gardner's Venetian palace, filled with treasures of three continents. In Cambridge are the Fogg Museum of Art, rich in early Italian masterpieces and Greek originals; the Germanic Museum with its gigantic plaster and electrotyped reproductions of objects of art of the Fatherland; the Semitic Museum, filled with originals and reproductions from the Holy Land, and the Peabody Museum of American Archaeology and Ethnology, especially rich in relics of the weird, mysterious civilization of Central America. Around the mural paintings in the Boston Public Library and the paintings and sculptures of the Massachusetts State House there is always a crowd of interested sightseers on a pleasant summer day.

Prominent among the scientific collections of greater Boston are those of the Museum of Comparative Zoology at Harvard, popularly known as the Agassiz Museum, whose beginnings are associated with the name of the simple-minded Swiss naturalist. The unique collection of glass flowers, made by an artificer whose secret is destined to die with him, is, of course, by far and away the most spectacular thing here—just as the synoptic room which tells the whole story of evolution on four walls is the most educational. At Tufts College in Medford, is a natural history museum which, among other exhibits, contains the taxidermist's restoration of the great elephant Jumbo, presented by the late P. T. Barnum. In Boston, next to the Massachusetts Institute of Technology, is the building of the Boston Society of Natural History, with collections confined mainly to the fauna and flora of New England, among which the summer time visitor may be interested in one of the most complete collection exhibits of flies ever formed anywhere. Fortunately these diptera are well impaled on pins and do not bite.

A natural history museum of extraordinary interest is one of living trees, the Arnold Arboretum in the Jamaica Plain district of the city of Boston. This, next to the celebrated Kew gardens of England, contains the most extensive arboral treasures in the world. Attractively situated in a park of rolling surface, and very accessible by the new elevated service to Forest Hills, the Arboretum in summer has the delightfulness of an outdoor museum. Wandering among its fragrant lilacs and privets, the primitive apple trees from Persia,—the very species that must have grown in the garden of Eden,—the hawthorns, oaks and conifers the visitor finds a scientific arrangement of species that is not inconsistent with artistic charm. By taking a car at the entrance of the Arboretum he may follow the example of several groups of the teachers in 1903 who made a special pilgrimage to Brook Farm in West Roxbury, the scene of the celebrated and ill-fated communistic colony in which so many high-browed Bostonians of the middle nineteenth century were interested. Pink water lilies were found in glorious bloom in the little pond where Hawthorne's Zenobia is fabled to have drowned herself.

The literary landmarks of Boston rank with the museums and other collections in making Boston a natural Mecca for such gatherings as that of the National Educational Association. Last time the Association came to the city there was distributed at a nominal price a compact literary handbook compiled by Mr. Lindsay Swift, of the Boston Public Library. With the help of the manual which gave the street and number of practically every house ever occupied by a literary celebrity —and briefly the circumstances of its occupancy—teachers were able to cover the shrines of genius, say, on Beacon Hill; then by an easy ride through the subway, those of the South End, now socially decadent, but fashionable half a century ago, and thence with another quick jump to Cambridge, a section where every shaded street has at some time sheltered a literary lion or two. Under no other plan is it so easy to realize the richness of the Golden Age of American literature.

The hospitality that was shown the teachers in 1903, such as the large reception in their honor at the suburban residence of James J. Storrow of the school board and the comfortableness of the hotel and transportation facilities made a profound impression on the convention. A large proportion of the visitors were not content merely with staying the week out in Boston, but remained to carry on studies at the Harvard summer school or simply to enjoy a season of profitable and delightful sightseeing.

The Development of Education

CLARA KERN BAYLISS, MACOMB, ILLINOIS

FIRST STAGE

IN all ages of the world, the educated man has been he who knew how best to live, how to meet emergencies, how best to take care of himself under all the conditions in which he might be placed. Of necessity, in the earliest period of human existence this meant how to hunt and how to defend himself against wild animals and human foes. For many centuries intellectual progress lay in the line of perfecting the arts of hunting and warfare. The skill and the ingenuity of man were applied to making better traps and pitfalls, sharper stones, stronger bows, more deadly firearms, and—for the home—firmer stockades, better moats and drawbridges.

SECOND STAGE

When the art of defense was sufficiently perfected, men had leisure to till the soil and weave cloth. Then education became a knowledge of agriculture and domestic science, with war as a side line. In this agrarian age, men, women and children wrought together in the home, preparing the food and clothing of the household, making the tables, chairs, bedding, tools and utensils. All children were taught by their parents how to work, and they wrought by the side of their elders. The intellectual activity of man, the development of his education, lay in the invention of devices for making all kinds of articles for domestic consumption with greater ease and perfection. Throughout both the hunting and the agrarian periods, brawn and brain wrought together, in each individual.

SCHOOLS FOR THE FEW

By this time people had learned that some system of reckoning was necessary in their barter with others; that it was convenient for purposes of exchange to know how to make and read numerical characters; and so schools came into existence

to supplement home education by teaching reading, writing, arithmetic and the languages of neighboring provinces.

Then came what is known as the Industrial Revolution, caused by a vast flood of inventions of labor-saving machines which enabled man to provide himself with necessities without constant toil. The work formerly done in the home, now was done in the factories; and there now was needed only enough toilers to tend the machines. And here was made the very grave mistake of exempting one half of mankind from labor during all of the time, instead of exempting all of mankind from labor one half of the time.

This mistake resulted in a division of the population into two classes: a toiling, unschooled class, and a non-working class, part of which attended school. These two classes became more and more widely differentiated. The toilers fell behind intellectually. Their children still worked with them in the nerve-racking din of the factory, and the condition of the hordes of little ones in the workshops of England became inexpressibly more pitiable than that of the negro slaves in America.

On the other hand, confinement in the schoolroom soon caused the physical condition of the non-working children to deteriorate, gave rise to many new diseases which reacted upon their mental faculties, and gave them morbidness of mind and aberration of intellectual and moral vision. The schools no longer supplemented home training, because home training was wholly lacking.

Some of this non-working class had no aptitude for sedentary life nor for purely intellectual pursuits. They preferred a life of action. They were dullards in school, were captious and troublesome. They played truant; they became vagabonds and villains.

THE ATHLETIC MOVEMENT

At last some of the older people began to suspect that the children were not the only ones at fault. They recalled that these pupils, as little children, and of their own accord, had been constantly active. They had worked incessantly, putting their ideas into execution as fast as they entered their brains.

They had instantly transmuted thought into action. And to ask them suddenly to transform themselves at the age of six; to expect them to become sluggish the instant they crossed the threshold of the schoolroom; and to sit still all day and do nothing but think, was entirely contrary to nature. And some of these good elders made the then surprising discovery that the highest mental activity can be attained only when the body is in vigorous condition.

Then these well-meaning elder people did a singular thing: Instead of giving the children productive employment for exercise, they gave them athletics; that is, expenditure of strength to produce no tangible results. They taught the lad who, as a little child, had played at working, now to work at playing.

Yet not all were required to play; so presently only the expert few engaged in the games, while the others, doubtful of their prowess, sat by and looked on.

THE ART MOVEMENT

By this time, the original, strictly utilitarian purpose for which schools had been started, was left far in the rear. New aspirations, new ideals had taken possession of some minds, and those who were spying out the land began to say that the purpose of education was culture.

To this end art was introduced into the schools. But neither culture nor art ever have been clearly defined in the mind of the masses. To three fourths of the people culture still suggests veneering, and art means a painting or a statue. Drawing in the schools means picture-making. Hence, until recently, the pitiful outcome of the art movement has been little more than the placing of busts and pictures in schoolrooms where the walls were pencil-marked and the desks defaced; thus affording the pupils,—not an inspiration toward art—but a lesson in incongruity.

This was trying to take the last step first. Beauty and harmony in walls and furniture is the first step toward aesthetic culture. The beautiful must ever be the fitting, the helpful. The most faultless human face has no real beauty unless, back of it, there is seen to be a strength and character which will continue to please when the pinkness and plumpness have van-

ished. After forty years of art movement in the schools we are just beginning to understand that beautiful parks, architecture and a clean city are the best object lessons in art for young and old.

THE COMPULSORY EDUCATION MOVEMENT

Long before this, a gulf had opened between the wage-earners and those who were striving after art and culture. Ignorance and poverty and toil were on one side of the chasm; wealth and leisure and brains on the other side. The multiplication of machines had come so rapidly, change had followed change so swiftly, the industrial revolution had been accomplished so speedily, that neither party had perceived whither they were being borne until the toilers in the factories looked out with their dust-reddened eyes at the green lanes and the palaces where the other half of mankind dwelt. Then they realized that, somehow, they had fallen into the background. They could not tell why. They and their wretched children were working twice as hard as their ancestors had worked in the days of home manufacture; yet daily and hourly the gap was widening.

They were not logicians nor rhetoricians. They could not put into intelligible language the dismay and chagrin that took possession of them. And the feeling which they could not express reacted and redoubled upon itself and became rage. The situation became electrical. They struck! And the strike was then, as it has been ever since, the protest of those who have been left behind.

It was a dumb, inarticulate protest; but there were those across the chasm who heard and understood. And the fact that their one-time brothers could not talk was what most impressed them. They saw—what the toilers did not—that the use of muscle alone had arrested the development of the wage-earners; that brawn and brain had become too widely disassociated and had taken up their abodes on opposite sides of the chasm. For the benefit of both striker and struck, a remedy must be provided. It was too late to do anything for the adults; but there were infants in the factories and sweat-

shops, children from five years upwards;* something must be done for them.

And so, against the protest of parents who wanted the earnings of their children, a compulsory school law was passed.

THE MANUAL TRAINING MOVEMENT

In the meantime, the effort to give the non-working children exercise was proving unsatisfactory. The few who played baseball and football were also the ones who did the pole-vaulting and running. All the others looked on. There were inter-collegiate games, betting and slugging. There were professional ball players, bicycle riders, boxers and prize fighters. Athletics had become over-ripe, and had reached that "farther stage less sought after in the markets." The movement for wholesome exercise had gone astray, and had ended in the strange spectacle of grown men devoting their lives and strength to play.

And still the children were sitting cramped at their desks. Some means must be found for reaching those who were not athletes. The advocates of exercise went back to the beginning and started again. And since the introduction of play had led to undesired results, they this time introduced work—manual training, to relieve and offset, and hence augment mental training.

But the lovers of art and culture complained that manual training was not aesthetic in tendency. They forgot that nothing could be more aesthetic in tendency than to learn to drive a nail straight, or to saw a board evenly off; than to fasten a loose picket in the fence, or replace a missing board in the tenement house; than to make a well-joined table, or a chair that would stand on four legs without wabbling. Learning to saw a board straight, or to drive a nail straight is not only a lesson in art, it is a lesson in living.

Manual training as found in the schools will not make skillful mechanics; nor will study of text-books make finished scholars. This is not expected of either. It is the function of the school to give the child a start on the road to effective liv-

* It is on record that a child of five sewed on buttons for thirteen hours a day.

ing, to help him to make the most of himself; and the initial step in effective living is effective doing.

The defect in our school system is that a large number of young people receive nothing but mental training and are therefore but half educated—for education means the development of the whole man. Much has been said about the superiority of the "self-made man," and by self-made is meant the man who has had to help himself to an education, who had been obliged to work while he studied, and who is, in consequence, educated and not simply schooled. It means one who has acquired experience in effectiveness, and is capable of seeing and grasping opportunities.

Many of the graduates even of colleges and universities are entirely uninitiated into the practical affairs of life. They are wholly ignorant of industrial and commercial processes, and have no idea of how to set about making a living. When flung out by their alma maters into the maelstrom of business, they flounder about like men who cannot swim, in a churning sea. Many of them go under. Some become desperate and turn into highwaymen or anarchists, or engage in fraudulent enterprises. Now and then, one commits suicide. Most of them try one thing after another until they have gathered sufficient experience to succeed. It may not be out of place here to relate an instance known to the writer, illustrating the helplessness of these highly schooled, under educated young men. One of them had been cudgeling his brains for days after commencement over the choice of a profession. He had not been taught to work, and his debts were accumulating. He was sitting in a brown study in the midst of a noisy assembly when he suddenly slapped his knee with great vigor and sprang up exclaiming, "My God! I have a call to preach!" Needless to say, he soon found that he had mistaken the source of the call.

THE TRADES MOVEMENT

The injustice of professing to educate people and leaving them thus stranded has attracted the attention of discerning school men, and there has arisen a demand for what Commissioner Brown calls a "dovetailing" of school and business life.

The United States is perhaps the most money-loving of nations, but it is far from being the most practical one; for despite our eagerness to obtain money we do not prepare our young people honestly to earn it. Those who are to become mechanics and factory workers go out of the school into the ranks of the unskilled laborers. Those who are to become commercial men, financiers, professional men, leave the schools with only theory, devoid of practice. The little German kingdom of Bavaria, with a population scarcely greater than that of New York City, has two hundred and ninety trade schools; while the United States with a population of eighty-five millions has but one hundred and thirteen trade and manual training schools of high school grade.

Nevertheless, the trades movement has arrived, and has come to stay. It is now several years since a little darky at Tuskegee Institute, replying to a question as to what course he was pursuing, responded; "Blacksmithing; and an academic course, necessarily." The Governor of Massachusetts has appointed a commission to inaugurate trade schools wherever they may be needed, and to provide for half-time courses in the day schools for the benefit of apprentices. The College of Engineering of the University of Cincinnati has arranged with thirty business firms to employ one half of its students week-about, so that they shall get theory in the school one week and practice in the shops the next week. Booker Washington, still in the forefront of education, requires the students at Tuskegee to alternate a day of study with a day of work.

But for pupils in the grades and high school, the alternate week, or even the alternate day is too long. No active child should be compelled to sit all day in the schoolroom; and it dwarfs and deforms the growing child to permit him to work all day in the factory.

It is not impossible that the scheme by which the department stores of Chicago evaded the compulsory education law may yet point the way to the rounding out of our public school system. In Marshall Field's, which had the best of the department-store schools, the cash boys were divided into three classes, each class attending school in the store for two hours on two days of the week, thus giving each lad four hours

schooling per week. The store could do no more, for the schoolroom was the lunch room which had to be cleared at ten o'clock. Now these stores could just as well employ twice the number of boys and girls, one half of whom should attend a regular school in the forenoon and the other half in the afternoon.

Manual training belongs to the grade schools; part time in trade school or in actual employment belongs to the high school; and experience in commercial or professional processes belongs to the colleges and universities. With these supplements to the three departments of our school system, the dovetailing would be complete.

Complete for those who want it. There would still be one thing lacking which must come before our schools will become a true educational system, and that is

A COMPULSORY WORK MOVEMENT

The shortcoming of manual training—as of all proposed trade and experimental work—lies in its not being obligatory upon all. Only those pupils engage in it who wish to do so. And there is a large number of children from prosperous families, who never work and who consider anything in the nature of work beneath them. It is becoming increasingly imperative that this false view should be corrected. If it is needful that the child of the striking wage-earner should learn to use his brain in order that he not only may be a better mechanic but may be a better citizen, it is equally necessary that he who is to work with his head should learn to work with his hands in order that he may be not only more intellectually efficient, but that he may be a benefit rather than a menace to the social organism.

Le Bon, speaking of French schools, says that the worst anarchists are recruited among the prize winners of schools; that criminality has increased one hundred and thirty-three per cent within fifty years; and that the increase has come with the generalization of instruction, there being three educated criminals to every illiterate one. But no one will believe that education and intelligence in themselves are harmful. The harm comes from a wrong use of them; from a mistaken and biased

instruction. And in the very next sentence Le Bon shows where the mistake lies; for he says that "criminality has especially increased among young persons for whom obligatory schooling has replaced apprenticeship." He further says that the French school system is based on the fundamental error that intelligence can be developed by memorizing text-books; and he contends that such a system belittles the student, fits him merely for automatic work, and deprives him of all personal initiative.

What is true of French schools is true of ours. It is from the class of non-workers in America that our greatest dangers spring. Three fourths of our criminals are young men. It is the youth who deems himself too much of a gentleman to work, who becomes the gentlemanly burglar, confidence man, libertine and defaulter. There is ignorant, brutal vice in the slums. There is a hidden cult of vice along the boulevards. And the latter is harder to eradicate than the former. There is hope for crudity and brutality; for that belongs to a formative, evolutionary stage. But there is no hope for the cultus; for that is vice gone to seed and scattering its germs of decadence all about it.

Since there is no cure, the only recourse is prevention. It was the part of wisdom to establish compulsory schooling for those who were to earn their bread by the use of their muscles. With equal wisdom we must institute compulsory work for children who are to live by using their brains. The young man who is not useful, is essentially a vagabond even though he lives on his father's millions. It is the tramp who says the world owes him a living and he is bound to have it. The disciplined man says he owes the world for his living and he means to pay the debt with interest. The former is a millstone around the neck of society. The latter is a factor in the progress of civilization.

The truly educated man is one who finds his highest pleasure in serving himself and the world either with his hands or his brain. In their immature years, children are incapable of intellectual service, and a combination of physical and mental discipline is the only means of fitting them for effective living. The aim of education is character-building. Judgment, nerve,

initiative, come only through experience. They are acquired by doing, not by studying the text-book. President Eliot says: "Industrial training informs the character as well as the hand. The question of industrial training is the question of the moral tone of the population."

And the question of early training in usefulness is a question of the man's value to himself and to the world. If he is not reared to usefulness he will inevitably prey upon society. The greatest need in education to-day is the restoration for all children of the practical, experimental half of it.

The Old vs. the New Three R's

WILLIAM H. ELSON, SUPERINTENDENT OF SCHOOLS, FRANK P. BACHMAN,
ASSISTANT SUPERINTENDENT OF SCHOOLS,
CLEVELAND, OHIO

WITH the introduction of new studies into the curriculum of the elementary school, and with the increasing use of new methods of instruction, there has arisen a country-wide demand that the three R's be restored to their rightful place in the education of the young. The three R's, the restoration of which is insisted upon, are the three R's of some generations ago, and those clamoring the loudest for their restoration, little know they are demanding the impossible, for the three R's of the 30's or 60's or that our fathers knew are things of the past,—they are gone and in their place stand the new three R's differing from the old in spirit, content and method.

READING

Reading is the oldest study of the elementary school curriculum. There is, however, about as much relation between reading as now used in the school and as used fifty years ago as there is between the old-time coach and a modern Pullman. Reading as employed to-day stands, to be sure, for certain attainments in oral expression, but it stands more especially for a study of literature.

The old-time reader was a catechism, a grammar, a book of science, a geography, a history, and a promiscuous collection of literary fragments bound together under one cover and dubbed reading. With the elimination of direct religious instruction and with the introduction of grammar, science, geography and history as separate studies, the subject-matter of reading underwent a fundamental change and came to comprise literature only.

Equally fundamental is the difference existing between the literary selections found in the present-day and the old-time

reader. The following are of the old: The Good Boy, Content, Death of My Father, Beauty's Blight, The Dead and the Living, Retirement, The First Pocket Knife, The Sloth, Jacko, Children, Naming the Baby, Only a Few Drops, etc. Many of these selections were beyond the mental grasp of the child; they made little or no appeal to his instincts and interests; they enabled him to satisfy no felt need, and in consequence were relatively valueless as materials of instruction. In the second place, though certain of the selections in the old readers were of the highest literary merit, a large proportion of them taught no great truth and were in reality literary trash. In contrast, owing partly to the fact that the literature of the world has been placed at the service of the child—having been rewritten in terms of his understanding, the materials of present-day reading are selected on the one hand with due regard to the immediate needs and mental ability of the child, and this is the reason why the readers of the primary grades now contain fairy tales, myths, legends, folklore, tales of chivalry and historical stories. For it is well understood that only that instruction is educative, has value for the child, which appeals to his instincts and interests, stimulates him to action and supplies him with the means of properly guiding and directing his activities. On the other hand, the materials of present-day reading are selected with reference to the social, artistic or the moral truth they teach; as it is upon reading we must depend more than upon any other study to inculcate those social and moral truths that are fundamental to right personal living and basic in the life of the social whole. In a word, the selections of the present-day reader are subjected to a double test: Is this selection such as appeals to the instincts and the understanding of the child, and does it at the same time contain a social, artistic or moral truth useful to the child under present social conditions? If a selection stands this dual test, it is used; if not, it is rejected. This test furthermore gives reading as definite a content as any other study of the school.

This insistence upon selections embodying a social, artistic or moral truth has led to a further striking difference between the content of the old and present day reading. In the old reader what literary selections there were, unless they hap-

pened to be short, were as a rule mere fragments. The child read Antony's Funeral Oration, but learned nothing of Shakespeare's Julius Caesar. He read of the Coming of Gather-Gold, but knew nothing of Hawthorne's The Great Stone Face. In the new readers, masterpieces are given and are studied as wholes. For experience has led us to see that it is only through the use of literary productions as wholes that children come to appreciate the power and attractiveness of the author, to appreciate the atmosphere and beauty of the selection, and to comprehend the truth taught.

A further difference between the old and the new lies in the fact that the reading of the child, in so far as this was directed by the school, was formerly limited to what was in his book. The present-day school regards this as only a part of its work. It seeks in addition to interest the child in a wide range of supplementary reading, to acquaint him with a number of good books, to stimulate the use of the library, and thereby not only teach the child what is good to read, but also inculcate in him the reading habit—a valuable asset for all the after years of life.

However striking the contrast between the content of the old and the new reading, it is no more so than that between former and present methods. The old method began by teaching the child his letters, then the syllables, ab, ib, etc. These were then combined into words of one, two, three and even of seven and eight syllables, great pains being taken to teach the spelling of each new word. Whether the child knew the meaning and use of the words learned was of little consequence. With a goodly number of words thus mastered, the child began to read. It mattered not whether he had thoughts and feelings to express or gave expression to any, the important thing was that he gained immediate control of the tools of reading. Present-day methods are opposite both in spirit and point of approach. The child is told a story that appeals to his instincts, intelligence and imagination: he is led to repeat this in his own way that he may gain power and facility in oral expression. He is also lead to make the story the basis of a game, to give expression to one portion of it through a drawing, to another through paper folding or other constructive activities; all of which is done that the child may have vivid appreciations, clear ideas

and strong feelings. With thoughts and feelings to express, with the motive for learning to read aroused, the formal work begins. Emphasis is, however, placed upon the sentence and upon the word as the means of giving expression to ideas and feelings, while the spelling of the words employed is at first taught but incidentally. The parent should therefore not be disturbed when the child during the first few months of school life seems interested in myths, legends and stories, interested in drawing and manual constructions, in the making and reading of sentences, but more or less oblivious to the old-fashioned primer and to spelling. The child is acquiring that which is of more value and which will later enable him to master with ease and rapidity the mechanics of reading and the details of spelling.

Equally different are the methods employed in the upper grades. In the old reading, the emphasis was placed upon oratorical or elocutionary effect. Many a child was able to read from a mere mechanical point of view that which he scarcely understood, and what he did understand was due to a process of absorption rather than to direct instruction. In contrast, the new method studies the selection as literature, care is taken to bring the child into its atmosphere, to bring him to the beauty, thought and feeling embodied therein. Then and then only is he permitted to read it orally. Even then he is not urged to strain after oratorical effect, but asked to read with the view of giving simple and intelligent expression to the thoughts, feelings and sense of beauty acquired through his study. In short, the new method emphasizes interpretation and appreciation, which renders reading an aid to all the other studies of the school, while the old emphasized elocutionary endeavor.

Reading as it appears in the modern course of study is therefore quite different from the old-time reading, and fulfills its purpose when the child acquires through it, a taste for and a reasonable knowledge of good literature, and insight into the social and moral principles underlying individual and social life.

SPELLING

The spelling of to-day is also quite different from that of times past. The old spelling sought to acquaint the child with every important variety of words,—it had as its field all the words of the English language. For this reason, it had little relation to practical educational ends. The spelling of the present day has, on the other hand, a definite educational purpose, and what is included within it is therefore conditioned by interests apart from what might belong to the subject when taken in its entirety.

The subject-matter of a study as a school subject is determined on the one hand by what the child is able to comprehend and use at the given time, and it is determined on the other by what is essential for him to know that he may be prepared to take his place in a given community, live therein a full, rich, personal life, and to do therein his part as a citizen. Such a basis of selection not only supplies the grounds of determining the content of a study as a school subject, but also supplies the grounds of simplifying it for school purposes.

When the words in spelling are selected with due reference to the needs of the expanding life of the child and to what will be of use to him in the community in which he lives they differ from those of the old speller. Difficult and technical words like apothegm, catholicon, lithology, lixivial, oleaginous, phthisic, antiscorbutic, etc., given in the blue back Webster and made so much of formerly will be missed, but there will be found those the child ordinarily uses, those he hears employed in conversation, words drawn from the other subjects he is studying, and those the average citizen finds of use in daily life. It is such words selected with reference to present and future utility that constitute the content of the spelling in our schools.

In the present-day teaching of spelling, attention is concentrated upon those words shown by experience to be difficult for children and often misspelled. In fact, the most satisfactory results have been attained through the presentation, each day, of but two such words; these are carefully studied and are reviewed from time to time until thoroughly fixed. Care is also taken to teach the more common and useful rules of

phonics and spelling, the correct syllabication, pronunciation and the ordinary meaning and use of the words learned.

The new spelling, in contrast to the old, contains, then, only those words the child can understand and will find useful in daily intercourse and in the more common occupations; all others are ignored, and it has served its purpose when the child has mastered these.

WRITING

Writing as a school study changes little in its content from generation to generation. The chief changes have been in style and methods of teaching. Fashion has had much to do with the type of writing in vogue, whether it was ornate or simple, oval or contracted, vertical or slant. The writing of our fathers was on the whole ornate, abounding in fine lines, flowing curves, delicate shades and complex letter forms. Gifted children became excellent penmen, but the attainments of the majority were indifferent; their writing lacked speed and simplicity. Furthermore, children on leaving school soon fell away from the old style and acquired a new hand more fitted to practical usage.

In contrast to the old style, in the new everything has been cut away that interferes with simplicity, legibility, fluency and speed, giving a type of penmanship in accord with present taste, and adapted to private use and business needs, and such that when children leave school, they do not feel inclined or find it necessary on going to work to change their hand. In a word, the time spent in the school on writing is being made to count for something in life.

Not only does the present-day style of writing differ from the old, but present methods of teaching it are also different. Movements and habits making for good writing later in life are emphasized rather than immediate, labored and stereotyped results. Consequently, that proper writing habits may be inculcated, pupils are exercised in a free forearm movement which experience has taught is the most conductive to fluency, legibility and rapidity. Aside from free forearm movement and proper position and posture, uniformity of size, uniformity of slant, and uniformity of spacing only are insisted upon.

This gives each child opportunity to develop the type of writing suited to his individuality, and only those expressions of individuality are suppressed which interfere with the acquisition of a clear hand and with the attainment of ease and speed.

The new writing is therefore distinguished from the old by its simplicity and clearness, and new methods of teaching it, from the old by the emphasis of the free forearm movement and individuality.

ARITHMETIC

The principles of arithmetic are, it may be said, the same to-day as yesterday, and for this reason the arithmetic of to-day must be the same as that of fifty years ago. This inference might be true were arithmetic treated as a science. The child, to be sure, might be taught to add, subtract, multiply and divide whole numbers, common and decimal fractions; he might also be taught the relations existing between numbers involved in percentage. This might be done with numerals apart from whether they represented dollars, bushels or any other concrete quantity. To treat arithmetic in this way would be to regard it as a science, and would result on the side of the child in a series of mental gymnastics, but in no practical insight. Still it is only through thus regarding and treating arithmetic that it is possible for the arithmetic of the present to be like that of the past.

Arithmetic as it finds place in the schools of the present is not regarded so much as a science, as the science of number applied to business operations; and where the present-day arithmetic differs from that of the past is in the emphasis upon utility and in the particular application made of arithmetical principles and processes.

When the important thing in arithmetic is taken to be insight into and arithmetical control of business operations, its subject-matter changes with every considerable development in business. No subject illustrates more clearly the necessary relation between the needs of individual and social life and the content of school subjects. Let any important change occur in the mode of transacting business and from the very nature of the subject this must be reflected in arithmetic. The table of

United States money and examples in reduction did not find place in pre-revolutionary arithmetic; there were no such problems in daily intercourse. One looks in vain for the subject of insurance in the older books. Insurance is a late development and finds place only in the books of a later date.

This emphasis upon the practical and useful led to a difference between the old and the new in the themes studied, as the present-day basis of selecting topics is to find what is fundamental in the methods and processes of the industrial and commercial world and make these operations and their arithmetical control the subjects of consideration. By virtue of this basis of selection, we no longer find such topics as were covered by the old Pike: extraction of the biquadrate root, barter, a perpetual almanac, table of the dominical letters according to the cycle of the sun, proportions and tonnage of Noah's ark, etc. Neither do we find in later books such topics as troy and apothecaries' weight, the less important tables of foreign money, highly technical and special portions of subjects like mensuration; nor do we find such themes as circulating decimals, alligation—medial and alternate, arithmetical and geometrical progression, all of which are antiquated or of questionable value to the average citizen. But we do find such subjects as the arithmetic of the home, of the grocery, of the farm, of lumbering, mining, manufacturing; such topics as the arithmetic of masonry, of carpentry, of the commission house, of the bank, of the stock company, etc.; topics rich in content and that go to the heart of modern business interests and activities.

A further difference between the old and the new arithmetic is the emphasis given particular themes. In the old, topics were considered of about the same value, and about the same amount of time was devoted to each. In the new, the value of a subject is not determined with reference to arithmetic as a study to be known, but with reference to what extent the process finds application in present-day business. From this point of view, we have come to see division is one of the more important of the fundamental operations, that decimals are of far more significance than common fractions, interest than partnership; we have come to see that a very small amount of time suffices for foreign exchange, longitude and time, square and cube root, if indeed certain of these cannot be eliminated.

There is also a difference between the old and the new in the way subjects are treated. In the old, the arithmetical process was considered apart from the industrial conditions and business practice giving rise to it. In the new, business relations and practice are studied with care, and the knowledge gained made the basis of appreciating a given arithmetical process and its application.

Again, the old arithmetic proceeded on the theory that the value of an example lay in the power gained through its solution. The examples of the old arithmetic were, as a result, formulated without regard to business practice, were theoretical and abstract; in fact a considerable portion of them were trick or puzzle problems, while their solution yielded no useful information. To illustrate: "Had an article cost 10 per cent less, the number of per cent gain would have been 15 more; what was the per cent gain?" "A tin vessel, having a circular mouth 9 inches in diameter, a bottom 4½ inches in diameter, is ¼ part full of water. What is the diameter of a ball which can be put in and just covered by water?"

The new arithmetic holds, on the other hand, that in life problems arise out of actual conditions and are solved for the sake of gaining useful insights. The problems of the new arithmetic are, in consequence, formulated with reference to industrial conditions and business practice; they are for this reason concrete, and their solution not only yields valuable information but practical arithmetical power. To illustrate: The number of manufacturing plants in Cleveland was in 1897, 2,927; in 1907 there were 3,740. What was the per cent of increase? Furthermore, the long and complicated problems of the old arithmetic, with their nine, twelve and fifteen figures, with fractions having denominators running into the hundreds and thousands, have disappeared and have been replaced in the new by more simple problems which conform more nearly to business practice.

Not the least of the differences between the old and the new arithmetic is in the methods employed. The old method made little effort to utilize the home experiences of the child, or to enrich these through the use of objects, constructions, measurements, mimic business activities, or through the study of the

simpler trades like the meat shop, grocery, etc. Appeal was made to memory alone. Drill, forever drill was the slogan. The new method, by contrast, makes free use of home experience, and enriches this through constructions in drawing, paper folding, manual exercises, or through measurements involving number and arithmetical operations. With the basis for the desired instruction laid in experience, the child is brought to appreciate the meaning of number and to understand the simpler arithmetical processes. If, for example, liquid measure is to be taught, certain of the liquids and articles used in the home, such as vinegar, milk, strawberries, etc., are called to mind. The child is led to see there is need of some means of measuring these as a basis of buying and selling. With the motive for learning developed, pint, quart and gallon measures are brought into the school. The child is then guided in making actual measurements and in determining the relation between the different units. In this way, the desired table is worked out. When the practical need of such a measure is made clear, when the standard unit and its relations to the higher ones is understood, then, and then only, is the child required to commit the table. He is also drilled upon it, not however in the old abstract way, but through being led to discover other ways in which the given measure is employed, and through being practiced in the measurement of different articles. Moreover, after several of the more common tables are developed, the school is organized into a bakery, a grocery, or a dry-goods store, and the children trained in measuring, buying and selling. Thus the child not only comes to know given tables in a real way, but he also gains insight into different kinds of trades and into different types of business practice.

Similarly in the teaching of the higher processes. Under the old method, the child was constrained to commit the definitions of commercial terms, to commit the rule for solving problems—say in commission and brokerage—and was drilled in their solution. Present practice, on the other hand, takes the child, when possible, to the commission house, lets him see the produce coming in from the country, lets him see the commission merchant receive the bill of consignment, receipt it, sell the produce, deduct his commission and return the proceeds to the

owner of the goods. With this experience as the basis of instruction, the teacher makes clear the necessity of such a business, studies with the child each step in the process, studies the different forms of bills and receipts, the reason and purpose of each. With this done, the child is led to solve for himself type problems in commission and to formulate the rule. That the instruction may be rendered more effective, the school is then organized into a mimic commission house and the children practiced in the different parts of the business. In like manner are stocks and bonds, banking and other commercial processes presented. Arithmetic in the upper grades is thus rendered real and as much a study of business forms and practice as of arithmetical principles and processes.

To summarize, the old arithmetic was strong in theory, the new strong in practice; the former complex, the latter simple, the one abstract, the other concrete; the old unattractive and dogmatic in method, the new attractive and natural; the old emphasized only arithmetical power and skill, while the new seeks to give knowledge of industrial and commercial operations, and business practice as well as develop power and skill in their arithmetical control.

THE NEW THREE R'S

The three R's: reading, spelling, writing and arithmetic, as they appear in the modern course of study are, therefore, not the same three R's that were given such large place in the schools of the past and that receive such popular acclaim at the present time. For they have been modified by the increase in the materials of culture, by the needs and demands of a new industrial and commercial age, and by new conceptions of education. These changes should not, however, be lamented any more than we lament the fact that the candle gave way to the kerosene lamp, the kerosene lamp to the electric light, for, though there is still need of light in the home, we have it more convenient and in greater abundance than formerly. So it is with the three R's. There is still need of them in the school. We still have them, but we have the new three R's, richer than the old in their content, more attractive and practical in their appeal, more virile in their influence, and better adapted to serve in the education of the masses.

The Elementary Curriculum and the Industries

ERNEST B. KENT, PH.D., DIRECTOR DEPARTMENT OF MANUAL AND INDUSTRIAL TRAINING, JERSEY CITY, NEW JERSEY

INTEREST in trade and industrial education has had a very sudden growth in this country; due primarily to the development of economic conditions which are rapidly reducing the supply of skilled labor. The anxiety produced by this situation has had its chief outlet in a demand for the development of various types of special school; but there is also apparent a demand for radical modification of the public school curriculum in the direction of trade training. Much of this is of a type that justifies unquestionably the word of warning from Miss Addams against permitting the manufacturers to take possession of the public school system as the business men years ago succeeded in doing.* However, the needs of manufacturers are by no means the only influence toward such modification of the school system. A similar demand is appearing from within the school itself. Prominent educators whose first thought is for the pupil rather than for industry, are giving serious consideration to the subject of vocational education, many of them furthermore, regarding it as in a large measure a problem of the elementary school.

The following reasons for this view may be noted:—

1. The subjects of the curriculum are now valued, not as discipline, but as subject-matter, *i. e.*, the question asked about a subject is no longer, Does it train the mind? but, Does it furnish useful knowledge, or the knowledge most likely to prove useful to its pupils?

2. Since nine tenths of the pupils do not progress beyond the elementary school, the special needs of this class deserve at

* Proceedings, National Society for the promotion of Industrial Education, 1907.

least as much consideration as the special needs of the one tenth destined for the high school.

3. Since desirable occupations are practically closed to children under sixteen years of age, the two intervening years are at present wasted by the great majority of city children. These two years should be conserved so far as possible for education, but, barring legislation, this can be accomplished only by interesting the pupil in some line of study or training which will make a stronger appeal, both to his own interests and those of his parents, than is made by the high school preparatory work, so much emphasized at present in the later years of the elementary school.

For two reasons, this problem of vocational education in the elementary school concerns in a special degree the department of the manual arts:—

1. The majority of those who leave school at fourteen are destined to be hand workers.

2. The elementary school is at present far less vocational with reference to production than to exchange, pupils leaving the upper grades with much more of preparation for commerce than for industry, and with an undue tendency to seek commercial positions.

The situation seems to demand a much increased time allowance for constructive work in the elementary school, and also the development of elective courses for those who do not look forward to secondary study. Such changes may be forthcoming within a few years, but in the meantime it is important to consider how the vocational content of the present courses should be increased, and how this may be accomplished.

It is to be noted in the first place that, speaking generally, vocational training for the girls of a community is a much simpler problem than in the case of the boys, four fifths of the girls being destined ultimately to follow the trade or profession of home-keeping. Thus the usual courses in domestic science and domestic art, since they deal directly with its processes, are in effect vocational, even when the scientific or the aesthetic value may be the one uppermost in the mind of the instructor. With the boys' hand work the situation is wholly different. Of the urban population as a whole, only one tenth, even of those

boys who are destined for industry, will ever find woodworking or the use of woodworking tools a major factor in earning their livelihood. Obviously, therefore, if the present type of manual work for boys is to be justified from the vocational point of view, this must be done in a very different and much less direct way than with the work for girls.

The most prevalent argument for the vocational value of the boys' work is that it gives a general training in manual skill and ideas of construction, the value of which is as fundamental in industrial life as that of the multiplication table in business life, and of high practial value regardless of the particular industry undertaken. This support would appear to have been considerably overloaded. The teacher of the regular subjects has reluctantly recognized that there is no such thing as "general intellectual training"—or at least, no one study which may claim to impart it; and the teacher of manual training seems destined to recognize in a like manner, that there is no such thing as "general" industrial training. Industrial life has become far too varied. The present evidence is that the training of one mental function does not bring improvement in another, except in so far as the two functions have elements in common, *i. e.*, that the mental training gained through studying arithmetic, memorizing nonsense syllables or estimating short distances is of no material assistance in the study of spelling, in memorizing poetry or in the estimating of greater distances.* Thus, pending the other evidence, it would seem best to assume that training in woodwork or in hammering copper will not aid materially in the making of an electrician, nor familiarity with the jack plane in the mastering of the machine planer. The boy who goes from the elementary shop to a trade will at once begin to use his improved knowledge about measurements and how to make them, and whatever ability he has acquired in the reading (not making) of working drawings. But, except for the small fraction who take up some form of woodwork, the school course can hardly influence appreciably the progress of boys through their apprenticeship—an assumption in no way

*See especially: A Study of Formal Discipline, Lewis, School Review, April, 1905, page 281; The Improvement of Mental Function, Thorndike & Woodworth, Psychological Review, Vol. VIII, page 247.

disproved, of course, by the startling successes of individual graduates.

One other consideration remains to be noted, namely, the probability that the various lines of industrial and mechanical ability are very often a matter of innate equipment. One is born mechanical it would appear, in very much the same sense that he is born musical. There are those who show a marked mechanical skill or ingenuity from early childhood on, and others who show from childhood and through life entire lack of such ability, a lack not at all inconsistent, of course, with exceptional talent in other fields.

Upon these considerations is based the thesis that the vocational value of the manual work for boys in the elementary school is mainly that of assistance in the selecting of an occupation. The technical skill which a boy will acquire previous to his fifteenth year will not be of any very great assistance to him even if he should enter the field of woodworking, since once in the right shop, he will surpass in a few weeks the skill which he has acquired at school. This reaching the right shop is the important and difficult problem, the most important and the most difficult which such a boy faces. Possibly the greatest value of the present course of study is that it does in some degree, at least, sift out the mechanical from the non-mechanical. The need for more intensive work in this field is sufficiently evident. Industry has now become most varied and calls for a corresponding variety of mental and manual talent. Many industries show radical differences in the demands which they make upon their workers—differences fully as radical as those between industry and commerce or the professions. Consequently, if a boy develops no enthusiasm for cabinet work or for decorating leather, it by no means stamps him as one of the non-mechanically minded. He may yet have in him the making of plumber, electrician, or even machinist. Under modern city conditions a boy learns nothing about these varied industries except those in which his relatives and friends happen to be engaged. Testing himself through actual employment in a number of these is so costly an experiment that there is every inducement to continue as long as possible, even in a line of work for which he may have comparatively little aptitude.

The admitted difficulties of this problem of vocational selection hardly justify the manual training instructor in ignoring it. If, as seems obvious, he is the best prepared of all the boys' home and school acquaintances for dealing with it, he ought surely to study carefully the industrial conditions of his locality and to find various ways of imparting knowledge of them to his classes.

Each of the leading industries should be studied with reference to (1) the special type of ability or skill required; (2) the aggregate amount of employment which it offers; (3) its general desirability as a permanent occupation. Fundamental differences would appear, of course, in highly specialized centers like Pittsburg, Lowell and Grand Rapids, but in many cities the following occupations would doubtless demand first consideration, including often a majority of those who could be classed as skilled laborers,* and they have been selected therefore as type-industries for further discussion:—

Woodwork (including carpentry, pattern making and mill work); machine-shop work; foundry work; plumbing; masonry (including concrete construction); electrical work.

These occupations are so dfferent in their requirements that experience in no one of them could be expected to assist one materially in mastering any other, nor would failure in any one of them justify the prediction of failure in all the others. The writer in his own experience with evening trade classes has repeatedly seen youths who proved hopeless in the pattern-making class turn to foundry work and electrical work with entire success. Some who seemed wholly lacking in appreciation of fine measurements or in manual ability with plane and chisel, would nevertheless develop rapidly that delicacy of touch required in manipulating the sand, or show promptly the possession of a mind that could carry or follow out very complicated electrical circuits. More common than either, perhaps, were those who would enter with a purely *a priori* bias for the electrical work which they would insist upon trying, only to discover in a short time that they had absolutely no head for its intricacies—though

* The number of men employed in each trade is given, by cities, in the Census for 1900, Vol. Occupations, page 561 ff.

some of these would later find themselves "right to home in the dirt," to quote one such boy who had been transplanted to the foundry class. It is not claimed that the preparation of pupils at fourteen years of age for choosing between such lines of work is an easy task or a wholly practicable one. It is claimed emphatically, however, that in the present state of utter ignorance on the part of the average boy, any sort of assistance, suggestion or advice regarding the important occupations, in fact any thing that will so much as set him to thinking about them, is far better than nothing at all.

Three distinct modes of treatment may be noted: The first one, always practicable, is a systematic discussion of each of these occupations with explanation of its general conditions of work, *i. e.*, its desirability in respect to wages, hours and seasonal fluctuation, ways of learning the trade, the period required, opportunities for advancement, etc. At the very least, the processes of each may be described and illustrated with photographs, magazine illustrations and trade catalogues, and library references for further study suggested. An effort which went no further than this might, in the writer's opinion, have an important bearing upon the selection of occupation by a considerable percentage of the pupils.

A step beyond this is the class excursion to watch the actual processes of the work. With the outside occupations like carpentry, bricklaying and concrete work, this is always practicable, and not infrequently in the writer's experience, with others as well. The class requires previous preparation for such a trip in order to make it a real study of the industry instead of a mere open-mouthed gazing about; but so handled, it is bound to give much more vivid and adequate notions of the industry than could otherwise be developed. The writer in making a study of the boyhood of eminent mechanical engineers found interesting testimony to the value of such experiences. Answering a question about the significance of their own constructive work during boyhood, nearly half of them alluded to the importance of observation as distinct from the actual hand work. Four of the replies read in part as follows:—

1. "My actual work was undoubtedly an incentive to apply my decided taste for mechanical work later, but it was rather watching mechanics at their

work that led me on. I spent my boyhood time in such ways constantly—whole days in engine rooms of mills, etc., but I actually made and finished few things of importance if any."

2. "In my own case I feel that my constant love for seeing machinery at work, and learning by questioning and observation the what and why of things, had most to do with my taking up engineering."

3. "I was fond of watching the machinists in the factory and spent as much time there as I was allowed, with the result of quickening my power of observation until I had the faculty of carrying in my mind complex mechanisms."

4. "What I consider of eminent importance for the future engineer would be much observation, especially if it can be done under a competent teacher. With a bright student this develops into a comprehensiveness that can never be overvalued."*

The final step in such a study most desirable when possible is a reproduction of the industry or some of its fundamental processes by the pupils themselves. Actual feeling of the materials will develop appreciation of many points which mere observation would fail to emphasize. Furthermore, while the other methods of study have necessarily aimed only at knowledge about an industry and interest in it, this one, bringing still more knowledge and interest, should also count in the discovery of special aptitudes in pupils, and furnish distinct suggestions regarding the probable lines of their greatest efficiency.

The usual course of study does this fairly well for the woodworking trades. The instructor is able after a few months to point to certain boys in each class who could unquestionably make successful carpenters or pattern makers, to others who might perhaps do so, and to others yet who could not conceivably do so. It is to be hoped that he advises them accordingly, at least when he learns that they are about to leave school. All this, however, is just as desirable in the case of the other leading industries, and has repeatedly been proved practicable. Of the six industries already cited only those of plumbing and bricklaying would seem to the writer wholly beyond treatment in the ordinary shop. The phases reproduced must, of course, be greatly simplified, the product usually upon a much reduced scale, and the workmanship exceedingly crude. However, the main question regarding the value of such work is whether the problems of the trade are handled in a typical way, as distin-

* The Constructive Interests of Children, page 72.

guished from a merely imitative way. In studying carpentry, for example, the framing of a model house using laths, might be called fairly typical, while the building of a miniature cardboard house would be mainly imitative. Concrete construction, "reinforced" with Venetian iron, has been experimented with in public school classes and tests applied to the different forms—another illustration of typical though much simplified reproduction.

In a study of the foundry, pupils can get some notion of the feeling of the process if the making of a small "flask" for casting with sand be introduced as a woodworking lesson, and its use explained and demonstrated. These may (and will by the interested) be used at home for the casting in lead of a great variety of forms. Considerable electrical tinkering and experimentation is possible at small expense and with little or no special equipment*—enough for the discovery of pupils that are electrically apt. This is also a field in which a large amount of homework may be secured from those specially interested with a comparatively small amount of suggestion and assistance.

No phase of machine-shop work can ordinarily be handled directly, but the working out of mechanical projects and moving toys, from jumping jacks up to water wheels and derricks, may give a certain acquaintance with mechanical movements and their transmission, while the planning and adjusting of the various makeshifts usually necessary to "make the thing work," may be expected to develop or at least reveal a mechanical versatility important to the future machinist or engineer. The possibility of such work for the special pupils, and in a measure for the whole class, would be much increased by the addition of a screw-cutting lathe (foot power) to the equipment. This may fairly be called the fundamental machine tool, and is of course a most versatile one. Its value as a text-book, so to speak, might prove quite equal to the value of its actual use by pupils, for careful demonstration of its uses and adjustments should be a great aid in developing appreciation of the machine shop.

* A working electric motor made with five wire nails, five feet of magnet wire, bits of glass tubing, tin foil and chewing gum will bring out the fundamental principles and adjustments of motor and dynamo, while bells, buzzers, telegraph sounders, etc., may be almost as simply constructed.

These two lines of work—the study of typical machines and the construction of the mechanical project—have another element of vocational value quite aside from their relation to machine-shop practice. They should develop in a degree the ability for intelligent operating, adjusting and repairing of machinery in general; an ability most important in what we may call the semi-skilled occupations—the better classes of factory work, which pay a wage between that of the day laborer and the skilled mechanic, and which nearly always involve the handling of high-grade machinery. Such cultivation of "machine sense" perhaps comes nearer to furnishing a "general industrial training" than any one other line of work, since perhaps two thirds of the industrial population will be influenced appreciably in their economic progress by their understanding of machinery or lack of it,—this even omitting those employed in agriculture, most of whom are also, as a matter of fact, much concerned with machinery.

The lines of work which have been indicated are of proved practicability in that they have all been carried on with apparent success under public school conditions. They are, however, intended only as suggestions for types of treatment which may be applied to a great variety of industries according to the requirements of any local situation. Of the three methods of study suggested, reproduction within the shop is possible for quite a number of industries, the class discussion for all. The teacher is not ordinarily prepared for handling any of them, but he may gradually prepare himself. Visiting the industries to which the census reports direct him, will furnish material for class discussions, and if he will make the attempt each year to reproduce phases of even one industry within the shop, he will find much that is practicable, and will gradually develop a group of industrial studies adapted to his constituency. He will also find that this type of constructive work will frequently subserve, quite as well as the more conventional lines of hand work, the other purposes—motor, cultural and aesthetic—which have so fully established manual training within the elementary curriculum.

Rhetorical Programs

V

For a Reading and Study Course in the Grammar Grades

MAUD ELMA KINGSLEY

(*Eight Weeks*)

Note 1. The object of this course in English is fourfold: (1) To save the time of the busy instructor by furnishing a definite and logically arranged plan of work; (2) To make the pupil familiar with standard literary productions suitable to his youthful comprehension, and to eliminate from the weekly rhetorical exercises the sentimental and unsuitable "pieces" which are too often a feature of such occasions; (3) To connect history and geography work with the English work; (4) To give to the young student a speaking acquaintance with the authors whom he will meet later in his college English work.

A. NINTH GRADE

(Subject, a Summer Journey Through North America)

I. For Class Reading and Study

1. Hawthorne's *Tales of the White Hills.*
2. Longfellow's *Tales of a Wayside Inn.* (*Prelude I, Birds of Killingworth, Lady Wentworth, Baron of Saint Castine, Elizabeth, The Rhyme of Sir Christopher.*)

Note 2. In *Tales of the White Hills* we include *The Great Stone Face, The Great Carbuncle, The Ambitious Guest.*

II. Rhetoricals

1. Class Exercise.
   - *a.* Class Discussion: Which section of North America contains the greatest number of objects of interest? (2) Which section of North America contains the most beautiful natural scenery?
   - *b.* Butterworth's *Fountain of Youth* (Florida).

Note 3. This poem may be recited by seven pupils, each learning a stanza.

   - *c.* Answers to questions regarding the scene settings of the works assigned for class reading and study.
2. Individual Exercises.
   - *a.* Emerson's *Monadnock*, Phelps' *Gloucester Harbor*, Coolidge's *Gulf Stream;* Goodrich's *Lake Superior;* Whittier's *Red River Voyageur, St. John;* Owen's *To the Sierra's;* Thompson's *The Wabash;* Piatt's *The Nests*

at Washington; Moore's *Canadian Boat Song* (written on the River St. Lawrence); Miller's *California;* Peabody's *Lake Erie;* Hay's *Prairie;* Savage's *Pescadero Pebbles* (California); Humphrey's *Mount Vernon;* Brooks' *Alabama.*

b. Walden Pond. (From Thoreau's *Walden*, chapter ix. *Nevertheless of all the characters . . . God's Drop.*)

c. The Concord Battle Ground. (From Hawthorne's *Mosses from an Old Manse*, chapter 1, *Come . . . led the way.*)

d. The Great Stone Face. (From Hawthorne's *Great Stone Face. The Great Stone Face . . . into the sunshine.*)

III. Composition Work

1. The Story of Hawthorne's *Great Stone Face.*
2. Pen Picture of the White Mountains. (From *The Great Stone Face.*)
3. Lesson Taught by the *Great Carbuncle.*
4. The Tragedy of "The Notch." (From *The Ambitious Guest.*)
5. The Journey of Evangeline. (From Longfellow's *Evangeline.*)
   a. Longfellow's Description of Grand Pré.
   b. The Atchafalaya Lakes.
   c. The River Teche.
   d. The "Far West."
6. My Most Interesting Journey.
7. The Mountains of New England.
8. The Saint Lawrence and Its Thousand Islands.
9. The Rivers of North America.
10. A Visit to Washington.
11. The Journey which I Should Like Most to Take.
12. The Best Story in *Tales of the White Hills.*
13. My Favorite Poem in *Tales of a Wayside Inn. Why?*
14. Hawthorne's Short Stories.
15. Character of Longfellow's Poetry.

B. EIGHTH GRADE

(Subject, Vacation Time)

I. For Class Reading and Study

1. Whittier's *Tent on the Beach.*
2. Thoreau's *Walden*, chapter xvii. Spring.
3. Kingsley's *Water Babies*, chapter vii.

II. Rhetoricals

1. Class Exercise.
   - *a*. Class Discussion: *Which is the better place in which to spend a summer vacation, by the sea or in the mountains?*
   - *b*. Repeat in concert Wordsworth's Sonnet, *There are Two Voices, etc.*
   - *c*. Holmes' *Chambered Nautilus.*

Note 4. Assign one stanza to a pupil.

   - *d*. Answers to questions on the scene settings of the poems included in *The Tent on the Beach.*

2. Individual Exercises.
   - *a*. Bjornson's *Over the Mountains High;* Longfellow's *Lighthouse, Fire of Driftwood, Chrysaor, Hymn to the Night;* Trowbridge's *At Sea;* Lowell's *To a Pine Tree;* Whittier's *Sea Dream;* Emerson's *Each and All;* Shelley's *Ode to the West Wind;* Bryant's *Evening Wind.*
   - *b*. Spring in Walden. (From Thoreau's *Walden*, chapter xvii. *The change from storm and winter . . . spring night in the woods.*)
   - *c*. Hawthorne's *Footprint's on the Seashore.* (*As I threw my eyes . . . in the sand.*)
   - *d*. From Hawthorne's *A Rill from the Town-Pump* (*as far as "and help yourselves."*)

III. Composition Work

1. A Vacation among the Mountains.
2. A Vacation on the Sea Shore.
3. Character of the Poems in *The Tent on the Beach.*
4. *The Tent on the Beach* and its Distinguished Occupants.
5. A Sketch of Whittier's Life.
6. My Impressions of the Coming of Spring Compared with those of Thoreau.
7. The Story of Kingsley's *Water Babies.*
8. The Lesson Taught by *The Chambered Nautilus.*
9. The Lesson Taught by Emerson's *Each and All.*
10. The Foreign Poems in *The Tent on the Beach.*
11. Sights and Sounds Peculiar to the Seashore.
12. Sights and Sounds Peculiar to the Mountains.

C. SEVENTH GRADE

(Reading, Appropriate for the Approaching Summer)

I. For Class Reading and Study

1. Whittier's *Among the Hills.*
2. Burroughs' *A Taste of Maine Birch; The Apple.*
3. Hawthorne's *Little Annie's Ramble.*

II. Rhetoricals

1. Class Exercise.
   - *a.* First seventeen stanzas of *Among the Hills.*
   - *b.* Repeat in concert Bryant's *Planting of the Apple Tree.*
   - *c.* Questions on the boyhood of Whittier.
2. Individual Exercises.
   - *a.* Longfellow's *Daybreak;* Timrod's *Spring in Carolina;* Lowell's *June Day* (from *The Vision of Sir Launfal*); Aldrich's *After the Rain, Before the Rain;* Longfellow's *Rain in Summer;* Tennyson's *Song of the Brook;* Kingsley's *Song of the River;* Sarah Roberts' *Voice of the Grass;* Thaxter's *Sandpiper;* Stevenson's *Where Go the Boats;* Whitney's *Up in the Wild;* Dunbar's *Song of Summer;* Tabb's *Clover;* Riley's *A Foggy Morning on the Farm;* Charles G. D. Roberts' *July, The Praise Meeting of the Flowers.*

Note 5. The last poem in the list must be used if it is possible, as it is a most excellent poem for the purpose.

III. Composition Work

1. The Scenery amid which Whittier Lived and Died.
2. Concord and its Associations.
3. A Trip through the Maine Woods.
4. Reproduction of Burroughs' Essay on the Apple.
5. A Summer Day in the Country.
6. A "Foggy Morning on the Farm."
7. A Summer Day among the Mountains.
8. The Sea in Summer.
9. Rivers I Know.
10. The Summer Flowers of My Neighborhood.
11. The Birds of My Neighborhood.
12. Nature Pictures from *Among the Hills.*
13. Where I Would Like to Go to Spend my Summer.
14. Sea Birds that I Have Seen.
15. Pictures in *A Taste of Maine Birch* which are Familiar to Me.

Editorial

IN these days of specialization and high tension every brain-worker should have an avocation as well as a vocation. Without thinking the matter out philosophically, a large number of persons instinctively seek relief from the strain of business or professional cares in some form of recreation that amounts in effect to an avocation. Some study yachting and go to sea in their own yachts, becoming practical navigators and finding vast satisfaction and abundance of new vitality in and through the pursuit of sea lore. Others in rapidly increasing numbers find the needed change in automobiling, which is much more than a mere fad, since it takes them out into the open, involves more or less study of mechanics, gives opportunity to observe men and things over large tracts of country, and gets them thoroughly out of the old narrow ruts. Others follow such avocations as gardening, farming, stock raising, fishing, shooting, camping, etc. Some take up literature, astronomy, sociology or some other branch of study as an avocation; and some find the needed change in church work or in fraternal organizations to which they give much time and effort, seeking to become leaders and finding large avenues of usefulness and influence in such lines of practical service.

We believe it is well for every teacher to deliberately choose an avocation. The teacher's vocation is peculiarly exacting. The lot of the teacher is cast in an environment that is usually unfavorable to the best physical health. There is a steady demand upon the nerves, and the profession is now so highly specialized that there is danger of mental and moral narrowness. All these facts suggest and invite a breaking away for a part of the time from the conditions and currents of life in which the teacher finds himself or herself to seek diversion, recreation, breadth and good red-blooded vitality in exercise of body and brain in other conditions and in something that will be absorbingly interesting and broadening and up-building. The teacher who succeeds in doing this will be a far better teacher as well as a healthier and happier man or woman. Many new inspirations for one's vocation come by indirection out of his avocation. We see our work in new lights, and gain a breadth of vision and an eagerness and strength which are large elements of success in any

work. The teacher is handicapped in the choice of an avocation by limited means. Yet this difficulty can be overcome. There are pleasant avocations that will take us out into the open and give us real satisfaction if we study the problem carefully and choose wisely. Nature study in one or more of its many branches might be suggested; the raising of flowers or vegetables or pet stock if one lives in the country; the keeping of bees in country or city; some domestic specialty in the lines of cooking or dressmaking or fancy work; cabinet work or some other branch of handicraft, or the mastery of some science, as astronomy, botany, ornithology or entomology; service, in connection with some benevolent organization working for the uplift of humanity. There are multitudes of opportunities in these days for any one to choose an avocation in which he can steadily increase his knowledge and efficiency and ultimately become an expert, if not an authority. This plan is earnestly recommended to the attention of teachers as practicable and likely to result in infinitely superior satisfactions to those arising from aimlessness or from a restless and haphazard seeking for diversion at theatres and cheap social functions.

SUNDAY-SCHOOL instruction, taking the churches as a whole, is far behind that of the secular schools. The methods used are antiquated and the results are meager. The new education has transformed the teaching in the public schools. Its principles have become well established. Its standards are high. Its provision for the training of the teachers is ample. The public require much of it and the results are forthcoming. Never were the public schools so efficient and so satisfactory as to-day. But in the Sunday schools there is a strange apathy or aversion to new methods. In the large majority of them the same old routine, practically as that followed fifty or a hundred years ago, is still in vogue. Most any one who is willing to take a class is supposed to be qualified to do so. No special preparation is required of either teacher or pupils. No examinations are held. No definite attainments or results are demanded. There are no promotions based on knowledge of the work done. There is no special difference between a given Sunday's work and that of a year ago or a year hence. The pupils never "get there." There is little to arouse interest and less to stimulate ambition. To be sure, a particularly earnest and consecrated teacher often gets a

personal influence over some or all of the class, and theoretically the aim is to produce a spiritual impression and mold character. But this, when successfully accomplished, is usually because of purely personal gifts and largely disassociated from the subject-matter studied and from the methods. It is notorious that in most any group of young people there are but very few who can answer any considerable percentage of say a dozen questions of very ordinary difficulty upon Bible history or biography. It is generally admitted that Sunday-school teaching is mostly done in ways and according to standards that would not be for a moment tolerated in the public schools. This is the more remarkable and regrettable when we consider the importance of the subject and remember the fact that there are any number of intelligent and consecrated people who are all ready to make any sacrifice and to devote any amount of time and energy, if any one would only show them how, for the successful accomplishment of the ends for which the Sunday school exists.

But this cloud has a silver lining. There is "the sound of a going in the tops of the mulberry trees." An ever-increasing number of Sunday schools are earnestly studying the situation and seeking for better methods and more definite results. Sunday-school Unions are recommending graded courses, and here and there a school is to be found which has broken away from the past and become thoroughly imbued with the modern pedagogical spirit. Instead of pouring out at the pupils that which the teacher knows, the pupils themselves are required to be active in the acquisition of a real knowledge of the Bible. It is believed that it is much better to lodge in young minds the actual words and facts and truths of the Scriptures and let these produce the desired ethical and spiritual results, than to leave the whole matter entirely to the personal influence emanating from the individual teacher. Graded lessons, with examinations, oral and written, and definite standards for promotion are coming to be more and more common. The plan is working well especially where it is intelligently supervised by one or more teachers or superintendents who have been trained for public school service; and when some flexibility is given to the plan in its earlier stages.

Many of the readers of EDUCATION are leaders in their respective communities in church and Sunday-school affairs. We commend to them the importance of this subject of better methods of religious instruction. Where it is possible a visit to a successful graded Sun-

day school will be found most suggestive and helpful. This new spirit will surely spread, to the infinite gain of the cause which is so dear to the hearts and minds of many of our best teachers and most thoughtful citizens.

THOSE who are responsible for the graduating exercises of grammar and high schools should carefully consider the arguments for simplicity on such occasions. There has gradually grown up an elaborateness about commencement days that is in very bad form and that imposes grievous burdens upon all concerned. Coming at a time when the pupils are wearied with their year's work, and when they need all their strength and resources for approaching examinations for higher institutions, or for initiation into untried experiences in business positions, the imposing and expensive graduation exercises absorb attention, exhaust strength and nervous energy and tax the parental pocketbook excessively. A prominent motive is often a mere unworthy desire to make a greater display than previous classes; and rivalries, jealousies and rancorous feelings are aroused that are anything but praiseworthy. There are no compensating advantages that cannot be better attained in simpler ways. It is, of course, well to mark the completion of a long course of study in some way that will be impressive. Pleasant thoughts and emotions should be made to center in such occasions, and they should be so planned as to be a natural and spontaneous expression of the joyousness and hopefulness of young life. But this may well be done without the accompaniment of elaborate and expensive dress, hired orchestral music, artistically printed programs, caterers and other embellishments altogether out of keeping with the unproductive financial condition of the celebrants. The literary exercises also are often of doubtful propriety. Such literary products as orations and essays are the prerogative of mature, not of immature, minds, and should only be attempted by boys and girls as a matter of practice. The results should be criticised by sympathetic teachers, not paraded before the public.

The best and most befitting graduating exercises we have ever known about are those of an endowed academy, whose founders were wise and thoughtful men who planned for efficiency and propriety along psychological and pedagogical lines. The commencement day at this school is a real expression of the joyous emotions of young

manhood and womanhood upon completion of a long course of study and in anticipation of what lies before them in the years beyond. The school hall is tastefully decorated by the students of the next lower class as a courteous recognition and expression of good will toward those who are educationally a year older than themselves. School musicians furnish acceptable music, vocal or instrumental or both. Modestly arrayed in such clothes as they would wear to church, the graduating class sit upon the platform and listen to an inspiring address from some distinguished educator or other person who is invited by the trustees to perform this service. Prayer is offered by the principal or by some citizen of the town selected by him. After an individual presentation of diplomas the graduating class gives a reception to the school and to their parents and friends. At this reception there are light refreshments and dancing by the young people, the older ones sitting about the edges of the hall looking on at the happy scene. All this is simple, natural, inexpensive, joyous and in good taste.

The subject is one which recurs annually at about this season of the year, and we are glad to note the beginnings of a reaction from the extravagant tendencies of recent times. We commend the matter to the thoughtful consideration of parents and teachers in the belief that reforms where needed can be best worked out by a hearty co-operation of both home and school.

Foreign Notes

ENGLAND

The Moral Education League is extending its influence throughout the British Empire, the field of its latest activities being India. With respect to its entrance into this imperial domain the annual report, just issued, says: —

> "We were prompted to undertake this work through the action in November of last year by the native State of Mysore in introducing Religious and Moral Instruction into its Government schools. . . . An abundant correspondence with Indians of diverse faiths has made more and more clear to us how deeply felt is the need in that country—where a purely secular system of education is in force in the State schools—of Moral Education.

The society has undertaken to prepare a book of moral lessons especially adapted for use in Indian schools. The work which is in the hands of Mr. F. J. Gould, who is thoroughly familiar with the special conditions of the empire, is already nearing completion, and negotiations have been entered upon for its publication.

The matter of moral education is so closely bound up with the social environment of childhood and youth that the improvement of the social and industrial conditions of the young may properly be regarded as a factor in their moral education. London offers impressive illustrations of this fact in the effect of the recently established trade schools for boys and for girls. It is not alone the young people who are benefitted but parents and employers also. One report states that "many of the employers have been so impressed by the method of training in the schools that they have endeavored to secure an improvement in their own workrooms"; and further that "parents are so much impressed by the remarkable improvement in mental tone, in physical development and in general intelligence, consequent on trade school training, that the larger proportion of places are now filled by paying students. Mechanics and artisans are willing to forego the earnings of their children for two years, to pay a fee of 10s. per term, and the many incidental expenses of fares, clothing, meals, etc., in order to insure their future industrial efficiency."

THE CONTINENTAL STATUS OF MORAL EDUCATION

In continental countries the question of moral education is so closely bound up with that of religious instruction that it cannot be separately considered. In Germany the Lutheran church makes a stand for doctrinal teaching in the schools, against the very widespread conviction on the part of teachers that a system of moral instruction, including the formal means, should be adopted, entirely divorced from sectarian teachings. The discussion of this question in Germany, like that of every other which enters into the conduct of education, is carried down to the root principles of human development. Hence, while the particular case may be local, its consideration becomes universally enlightening. This profound conception of the subject is impressively set forth in a number of the bulletin of the Bureau of Education, prepared by Prof. A. B. Show, of Leland Stanford University. The presentation which is entitled "The movement for reform in the teaching of religion in the public schools of Saxony," is not only exceedingly informing but is a model in method and spirit.

In France the vital problems of education seem for the time to be quite obscured by the contest between Church and State which has invaded the school in a most pernicious form. The "liberty of fathers" is a specious phrase by which ecclesiastics attack the right of the State to prescribe the books that shall be used in State schools; but, in reality, the phrase simply covers the claim of the Church to be the sole judge in this matter. "Where there are two schools," writes a priest, "one neutral, the other confessional, parents cannot hesitate; they must send their children to the confessional school." And again, "the text-books which have been interdicted by the Episcopacy, remain under the ban. The use of them is forbidden in the schools; the faithful must not under any pretext read them, nor allow them to be in the hands of their children." This it will be seen is not parental liberty but clerical mandate.

A. T. S.

Book Notices

A Forward Step for the Democracy of To-morrow. By William Thum. The Twentieth Century Company, Boston, Mass. Price, $1.50.

This book is all about the value, not to say the necessity, of a high school education for all the citizens of a truly democratic state. Its argument is based on the premise that at present a good secondary education is the privilege of only the few. Elementary education is fairly well distributed, but secondary education is from necessity chosen only or chiefly by a small number who have the means, or who have some friend or relative who has the means to put them through the high school. This narrowing of the circle of liberally educated persons creates, in the author's opinion, a class or caste in the social body which is highly undemocratic and which results in various economic consequences that are extremely injurious to the public welfare. In fact most of the evils of society as at present constituted would disappear if the reforms advocated were generally and persistently applied. The strength of this thoughtful volume lies in the fact that it is not a mere destructive criticism of social and educational conditions as they are to-day. It is much more and better than this. It is nothing if not constructive from the first chapter to the last. The author shows how even under present school conditions any boy who has been taught in the elementary schools (as all boys should be) that a high school education is of the utmost importance, can, with earnestness of purpose and steady perseverance, obtain such an education at his own charges and in a way that will greatly enhance its ordinary value. A brief quotation will suggest the essential feature of this wholly original and interesting scheme: "Let him find a willing partner in a tried friend, and let them together seek permanent employment in some business as one boy—one to work in the forenoon, the other in the afternoon. After demonstrating their ability to do their work to the satisfaction of their employer, let them apply to some well-equipped high school or polytechnic school for admission in half-day sessions—one to attend in the forenoon and the other in the afternoon for the first year, with the reverse order of time for the second year. In this manner each will attend a year of morning and a year of afternoon sessions, and in two years will have obtained a full year of schooling." The difficulties, the advantages and various bearings of this original plan are carefully presented. But the book goes much further than this. It advocates the great enlargement of high school opportunities until they shall be within the reach of all, both boys and girls. The plan by which this is to be accomplished, without serious increase in the taxes of the people, is based on the fact that with modern machinery and methods any young person in four or five hours a day of labor can produce enough to support himself in comfort. A system of "Public Works High Schools" is to be inaugurated in which the pupils shall be productive to the extent of their own support and the maintenance of the school, during the period in

which they are acquiring their secondary education. Space is lacking in which to give this interesting plan in anything more than a bare statement of its central idea. But every teacher and every parent in the land should own and read the whole volume, which sets forth this and other novel theories in a most attractive and constructive fashion. The argument is plausible, and the trend of the author's thought is certainly in the right direction. It may well be called an epoch-making book.

Poe's **Raven,** Longfellow's **Courtship of Miles Standish** and Whittier's **Snow-Bound** have all been brought together in one little book, carefully edited by Dr. Charles R. Gaston, and published by Charles E. Merrill Company, New York. Price, 25 cents.

It is very convenient for the student to have these poems, required for college entrance examinations in English, in one compact volume. And to the lover of poetry these poems, which appeared in 1845, in 1858 and in 1866, will always make their charming, thrilling, never-to-be-forgotten appeal.

English Humorists, by William Makepeace Thackeray. The Macmillan Company, New York. Price, 25 cents.

Here is a handy and excellent edition, with introduction and notes by J. C. Castleman, of Thackeray's delightful lectures on Swift, Congreve, Addison, Steele, Prior, Gay, Pope, Hogarth, Smollet, Fielding, Sterne and Goldsmith. It is keen, incisive criticism, and most enjoyable reading.

The Leading Facts of American History is a new, thoroughly revised and partly rewritten edition of a very serviceable book, by D. H. Montgomery. Ginn & Co., Boston. Price, $1.

It has long served as a text-book in many schools. Now in its "new form, new type, new illustrations and new maps" it will be more useful than ever. It is no small task to attempt to cover American history in its marvelous and varied developments from the days of Columbus to President Taft in four hundred pages of text (including a great number of excellent illustrations), plus one hundred pages of notes, appendix, questions and index; but this our author has done with care and as much fullness as space would permit. Of course some matters of great importance have received very cursory treatment, and some which deserved notice have been wholly omitted. But the careful student of this book will have a good general knowledge of the history of our country.

The Education of the Child. By Ellen Key. 85 pages. Price, 75 cents. G. P. Putnam's Sons.

This is a chapter from Miss Key's well-known book, The Century of the Child, a work that has gone through more than twenty German editions. Mr. Edward Bok says of this chapter: "Nothing finer on the wise education of the child has ever been brought into print. To me this chapter is a perfect classic; it points the way straight for every parent, and it should find a place in every home in America where there is a child." The plea made by the author is for a saner form of bringing up the child; for more freedom, less restraint; for truer conception of the nature and needs of the child. Not alone should

this be a book for parents, teachers will find in it much that will illuminate their work and make their part of the training of the child an inspiring and noble task.

A Second Book in English for Foreigners. By Isabel R. Wallach. 256 pages. Price, 50 cents. Silver, Burdett & Co.

Not only must a foreigner learn to speak and write the English language, but he should know in the very process of learning our language what are the customs of the American people and their government. In this book the author has undertaken to provide practical help, authoritative information, civic education and technical training, and all in a manner easily understandable by the learner. Especially interesting and valuable is the information relative to naturalization. The book should be used in every evening school attended by foreigners.

The French Verb. By Lieut. Charles F. Martin, Instructor in Modern Languages, U. S. Military Academy. 359 pages. American Book Company. Price, $1.25.

The aim of this book is to teach the student how to use the French verb at the same time that he is learning to conjugate it. Complete conjugations of all French verbs are given, and their idiomatic use is carefully illustrated. The verbs are arranged in the order of their importance. The very dictionary gives the idiomatic use of all verbs offering peculiarities or difficulties. The book is the most comprehensive treatise on the French verb offered as a text-book; its use will ensure a thorough mastery of the most vexatious parts of the French language.

A Modern Chronicle. By Winston Churchill. Author of Richard Carvel, The Crisis, Mr. Crewe's Career, etc. Illustrated by J. H. Gardner Soper. The Macmillan Company. Price, $1.50.

This is one of the best of Winston Churchill's novels. It is a fascinating love story, in which the characters are so sharply drawn that they seem real flesh and blood people whom we know and love. A lovely girl dominates the story. Her emotions, achievements and experiences are intensely human. It is like entering a choice social circle to read the book, and we can hardly believe as we lay it down that we have been dwelling in the realms of imagination.

The Syntax of High School Latin. Edited by Lee Byrne, Central High School, Chicago. 54 pages. University of Chicago Press. Price, 83 cents.

This book presents statistics of syntax in four books of Caesar, six orations of Cicero and six books of Vergil, together with a selection of five examples of each construction in each author, arranged systematically, and the same examples arranged also in the order of their occurrence in the texts. Fifty collaborators, mostly high school teachers, assisted in gathering the statistics. Mr. Byrne has made an admirable digest and arrangement of the material, which is of the utmost importance to all teachers of Latin in secondary schools. The sum up of the statistics shows that there would be a twenty-five per cent increase in the efficiency of the work in syntax by concentrating on the constructions selected.

The Tragedie of Anthonie and Cleopatra, The Life of Tymon of Athens and **The Tragedie of Titus Andronicus, Anthonie and Cleopatra, Troylus and Cressida, Cymbeline, Pericles, Measure for Measure, All's Well that Ends Well, The Merry Wives of Windsor,** by William Shakespeare. Edited with Notes, Introduction, Glossary, List of Variorum Readings and selected criticism. By Charlotte Porter and Helen A. Clarke. Thomas Y. Crowell & Co.

These are all choice editions of Shakespeare's Plays; neat, well printed, scholarly and suitable for the class room or the general reader. Their handy, pocket size especially fits them for summer use in situations that forbid bulky volumes.

Poems. By William Whitman Bailey. Preston & Rounds Company.

Professor William Whitman Bailey is well known to the readers of EDUCATION as a contributor of nature articles and poems. Most of the poems in this volume are flower poems, and nearly all those on other subjects have in them a touch of sentiment for nature, of which the author is an ardent lover as well as a profound student. In this day of specialization it is well that a flower poet who is well worthy the name has arisen. Professor Bailey's work as a scientist has never dimmed his susceptibility to the delicate charm of nature. He reveals in this delightful volume many a precious secret, which has been whispered to him in sunny meadow or shaded dell.

A Text-Book of Physical Chemistry, Theory and Practice. By Arthur W. Ewell, Ph.D., Assistant Professor of Physics, Worcester Polytechnic Institute. With one hundred and two illustrations and sixty-three tables. P. Blakiston's Son & Co. Price, $2.25 net.

This volume, attractively printed and illustrated, is thoroughly up to date in its subject-matter. It will fill a place in the class room that no other book yet printed in this country is qualified to fill. Its intent is threefold—to serve as a laboratory manual, a text-book for the recitation room and as a convenient and comprehensive reference book. Experiments involving expensive chemicals have been avoided as far as possible. The laboratory exercises are planned so as to give the student a clear insight into the principles involved. Provision is made, however, for some hard thinking on the student's part in working out the problems. An equivalent of the freshman and sophomore years, courses in mathematics, physics and chemistry is presupposed as a preparation for use of this manual. Theory and experiment are closely yoked together, and the most important modern problems are fully treated in this excellent volume.

Practical Agriculture. A brief treatise on Agriculture, Horticulture, Forestry, Stock Feeding, Animal Husbandry and Road Building. By John Wilkinson, A.M., Assistant State Superintendent of Oklahoma. Formerly Professor of Agriculture in Northwestern Normal School, Alva, Okla. American Book Company. Price, $1.

This volume is an excellent practical guide on the leading branches of farming. It is written by one who is well qualified to speak on the subjects

covered, as he is a profound student, and has had a practical training, which gives him first-hand knowledge. The book will serve as a convenient text-book for the teaching of agriculture in high and other schools.

The British Isles. By Everett T. Tomlinson. Houghton Mifflin Company, Boston. Price, 60 cents net.

This is an exceedingly interesting book, and packed full of information. It is an actual record of what several very much alive American boys and girls saw in a somewhat leisurely trip through Great Britain and Ireland. We have never read a book that told in so small a space, a little over three hundred pages, so much which Americans are eager to know about these famous isles. The large number of excellent illustrations and the maps add much to the beauty and value of the book. Young people everywhere will delight to read it.

An Inland Voyage and Travels with a Donkey. By Robert Louis Stevenson. Charles E. Merrill Company, New York. Price, 40 cents.

This new volume in Merrill's English Texts has been carefully edited by Allan Abbott, of the Horace Mann High School of Teachers College, New York. Readers of Stevenson do not need to be told of the incomparable charm of his writings. And as we go with him on this canoe trip from Antwerp to Paris, or over the Cevennes Mountains with his stupid donkey, we marvel at his keen observations and irresistible wit and humor, often under very depressing conditions.

Broad Lines in Science Teaching. Edited by F. Hodson, Ph.D. The Macmillan Company, New York. Price, $1.25 net.

Here is a valuable book. It covers a vast territory. It is the combined wisdom of a score of experts, mostly in England, but one each from Ireland, New Brunswick and the United States. The subject for discussion is "The teaching of science to boys and girls of secondary school age." These writers believe in it thoroughly, and proceed to show "the many sided human value of science in modern education." In a long and able introduction Prof. M. E. Sadler, of Manchester, affirms that the study of natural science has done what the classical renaissance did centuries before, viz., swept through the whole field of higher education, and given "a new aim and method to the schools." Whether one agrees or not with all these writers, he will find them earnest, able and vigorously defending their views, and he may be surprised to find how deeply this study enters into the health, the mental and moral growth, and the general welfare, not only of students, but of all the people. We commend these papers heartily, and are sure every thoughtful teacher will benefit by their perusal.

Donkey John. By Margaret W. Morley. A. C. McClurg & Co., Chicago. Price, $1.25.

The author of The Bee People and The Renewal of Life, has a happy faculty of making her characters stand out distinctly. Donkey John, the hero of this book, is a bright and very persistent boy, who lived in the Toy Valley, far up in the Tyrol of Austria, among the Dolomite Mountains, a century

ago. Here most of the people are wood carvers, and make the toys so dear to the hearts of children. They keep at it for generations, and become very expert. John, whose father was a woodcutter, determined to carve toys, and this book tells how, after many years and endless mistakes, he finally succeeded. A love story is nicely interwoven through it all.

Modern Language Texts. Heyse's Anfang und Ende; Schiller's Jungfrau von Orleans; Der Fluch der Schonheit; Baumbach's Der Schwiegersohn; Schiller's Maria Stuart (Ginn & Co.); Roth's Ein Nordischer Held; Ries' Easy German Stories; Mairet's La Petite Princesse; Sand's Le Meunier D'Angibault (American Book Company); Betz' Till Eulenspiegel; Spanhoofd's Erstes Lesebuch (D. C. Heath & Co.); Von Hillern's Hoher als die Kirche (Merrill).

Each of these texts is edited by teachers, and is prepared with due regard to pupils' ability and equipment.

Elementary Course in Perspective. By Sherman M. Turrill, C.E. D. Van Nostrand Company. Price, $1.25 net.

In this book Mr Turrill illustrates the mechanical application of the principles of descriptive geometry to the making of a perspective drawing. He employs two methods: the method by the use of the plan and the method by scale. In the former all details are to be drawn with instruments, particularly if there is much mechanical labor entailed. Where the accurate location of the leading points only is desired, the method by scale serves well, and is the quicker process. The author discusses the first method mainly with the view of assistance of the mechanical drafts, whereas the second method is intended for the artist and freehand draftsman. The work is enriched with sixteen illustrations and folding plates. A beginner in the study of perspective will find this a usable book, even without the aid of a teacher.

We acknowledge the receipt of the following books:—

Journal of Proceedings and Addresses of the National Education Association. Denver, Col. 1909.

Biennial Report of the Board of Education. Reading, Pa. 1907–1909.

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The Most Beautiful Thing in the World. By Fletcher Harper Swift. With illustrations by George Alfred Williams. E. P. Dutton & Co., New York. Price, 30 cents.

This choice little volume deserves to be ranked with Drummond's "The Greatest Thing in the World." The present edition is intended as a school edition, and at this season of the year when superintendents are seeking supplementary reading, we take pleasure in commending this volume of fifty-seven pages to their special attention. The suggestion of the book worked out in a striking and beautiful manner, is that beautiful lives are the most beautiful thing in the world. The story is so told as to inevitably rivet the attention of young readers. It is suitable for any grade above the fourth, and has been strongly recommended by such discerning educators as Prof. H. H. Horne, Prof. Frank M. McMurry, Ass't Supt. Meleney, of New York City, and many others.

Manual of Elementary French. By Isidore H. B. Spiers. French Master at the William Penn Charter School, Philadelphia. Ginn & Co. Price, 50 cents.

There are in every language a certain number of facts of accidence and syntax, a knowledge of which is indispensable. Without going into the detail of exceptional, rare or debatable cases, this manual places before the student, in the clearest possible form, these fundamental facts. The exercises provide drill in each of the points touched upon in the manual. The beginner, the student and the reader will find this book of substantial assistance in clarifying his knowledge on some elementary point in French.

Periodical Notes

The Dial celebrates its thirtieth anniversary with the May issue, which number has a table of contents possibly not equaled by any contemporary literary review. *The Dial* has had a most interesting development. It states with justifiable pride that in all its thirty years it has never missed an issue; nor has its external form been materially changed. Few are the journals that have been conducted by the same man for so long a period; fewer still are those which, after thirty years, remain in the hands of their founder and first editor.—The May number of *Everybody's Magazine* contains the final chapters of Judge Ben. B. Lindsay's masterly effective story of "The Beast and the Jungle." With all its discouragements it is an optimistic story, and the victory that marks this installment should be an inspiration to other men elsewhere.—"College Men and the Bible," an article contributed by Clayton S. Cooper, to the May *Century*, is alive with inspiring facts of the widespread revival of interest among intellectual young men in the text and teachings of Scripture. In the West and South in 1908–09 ten state institutions reported an actual attendance of 3,678 students in Voluntary Bible classes. In the college year 1908–09, 41,509 books for the study of the English Bible, prepared by college professors and Bible experts, were purchased and used for systematic work among students.—*Lippincott's* for May publishes the fifth paper on "What is Wrong with our Public Schools." This paper deals with "The Cost of Improvement," a subject of vital interest in the public-school problem.